

Woodworking

CRAFTS

NEW!

HAND, POWER & GREEN WOODWORKING • TURNING • RESTORATION • DIY

Issue 5 Autumn 2015

Accurate marking out *with Peter Sefton*

Simple pyrography
Cleaving green wood
Plans 4 You – Welsh dresser
Using the planer thicknesser

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6

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Woodwork on the web

To find more great projects, tests and techniques like these, visit our fantastic website at: www.woodworkersinstitute.com



Welcome

to the September
issue of

Woodworking Crafts



Hello everyone and welcome to the autumn issue of *Woodworking Crafts*. I'm pleased to say that this new woodworking magazine is doing really well. I struggle to think of any criticisms we have received, only compliments, and not just from new readers but our older generation woodworking enthusiasts who were brought up imbued with an interest in the subject. It does seem to have touched a chord with many people, including readers from 'across the pond' in the USA, where woodworking magazines assume you already know a lot about woodworking.

We don't like to make any assumptions about reader's capabilities, instead we try to bring you a variety of topics, techniques and projects so there should be something for everyone to try or simply enjoy a good read. However, we don't just sit on our laurels, we always want to improve the magazine but we can't do that without your input. So, if you have any ideas about how you would like it to evolve, then do get in touch and we will do our best to accommodate your interests. Thank you to everyone who has supported us so far – keep reading, it can only get better!

Anthony Bailey, Editor

Email: anthonyb@thegmcgroup.com

30



Now in
its
6th Year!



WOODWORKING IN ACTION

12th and 13th September 2015

Cressing Temple Barns, near Braintree, Essex CM77 8PD

The European Woodworking Show is an amazing showcase of craftsmen and women from around the world. Set in the beautiful grounds of Cressing Temple Barns in Essex.

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Ladderback SHELVING

In an attempt to reclaim his earlier project successes, **Anthony Bailey** decided to take a step up the ladder of furniture making and create a shelving and desk unit with **Mark Baker**

Mark and I decided that a visit to a reclamation yard was overdue so we visited Dorton's in Burgess Hill, West Sussex – www.dortonreclaim.com – not many miles from the GMC workshop. There are plenty of yards like this one all over the UK with all kinds of hidden gems. We were after some boards to make a ladderback shelving unit, which is a popular style at the moment. It has gravity on its side – quite literally – and it looks good with some useful storage surfaces: nothing hidden, everything intended to be on view. Other benefits include the fact that it is also relatively cheap to make and can be 'knocked down' and moved to another location.



1 Reclamation yards are normally open and welcoming to the public, but not the place for children or dogs because there is a safety risk with so much building material around. Have a look, who knows what you might find?

2 We alighted on a stack of resawn floorboards, each one cut through edgewise twice on an industrial resaw after careful denailing. That means each board delivers two outer boards with a 'dirty face' and a clean sawn face and a centre board with two clean sawn faces. This makes for thinner,

more economical cladding material but for us it would deliver construction material for a shelving unit at a reasonable price.

3 I wanted a desk surface which would be two board widths so they needed jointing. The easiest method I had to hand was my trusty biscuit jointer. It doesn't get a lot of use these days but it is the quickest and easiest way to make carcass joints. I chose to keep the worn board edges as they met reasonably well and then have sawn upper faces on all the shelves. ➤



1

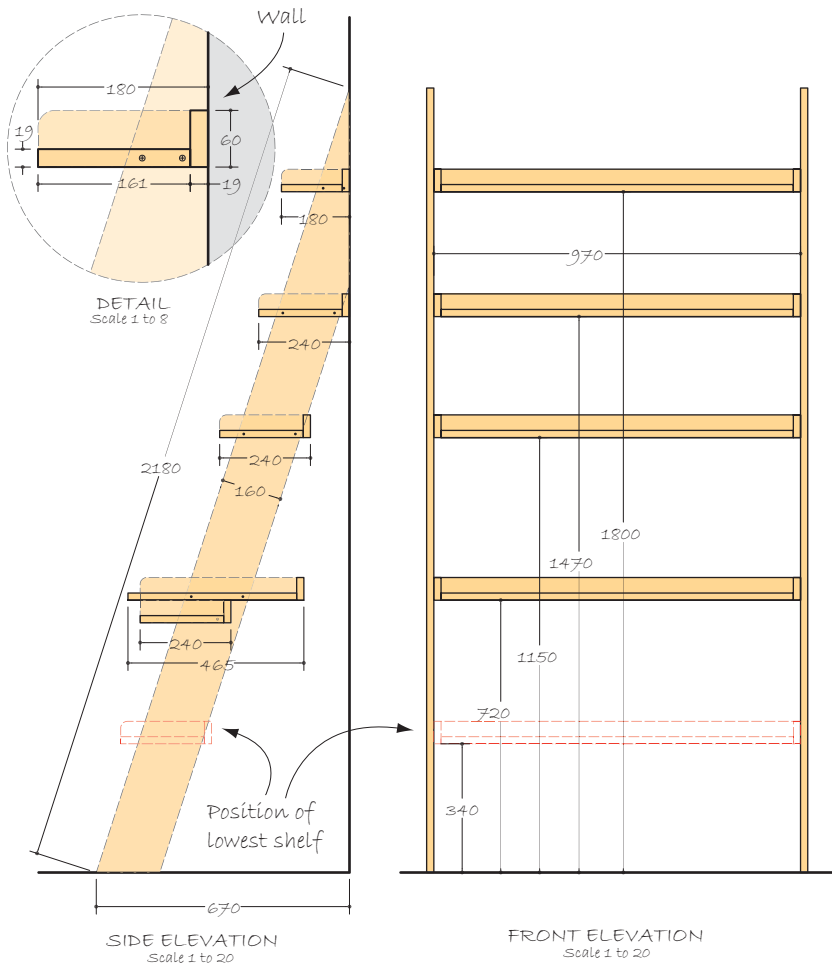


2



3





4 Next, the dirty faces of the boards were brushed vigorously while wearing a dust mask to remove all loose building dust. The desk surface would be made with two clean faces, the upper sides being placed face down on the bench so the bench surface acted as datum when biscuit jointing to create No.20 slots.

5 With aliphatic resin glue carefully applied the biscuits were inserted and the boards joined together. Any surplus glue would help fill any slight gaps between the two boards.

6 When the boards were clamped together, I took care to ensure they lay perfectly flat on the bench. Surplus glue was wiped up and the desk surface left to dry.

7 The desk then needed an upstand at the back and sides. Using slim twinfast screws was enough to hold them in place. The end screws were set in somewhat to avoid any risk of splitting as I did not pre-drill the holes before screwing.



8 The front corners of the desk and the upstand ends needed rounding over to look right and comfortable if brushed against. I did this on a disc sander but a coping saw and a rasp would do just as well. An aerosol lid was used as the arc shape for the desk.



9 Again, these screwed into place taking care to avoid splitting, especially the single screw to fix into the end of the back upstand section.



10 A last job for the desk was using my favourite abrasive bat with Abranet held on with hook-and-loop fastening to smooth and round off edges and corners.



11 The sides of the 'ladder' needed to be cut down widthwise on the tablesaw. However, as the pine (*Pinus spp.*) was quite soft, it was easy to do with a handsaw and just plane the edges smooth. They were both overlength so I could gauge the angle and shape required.



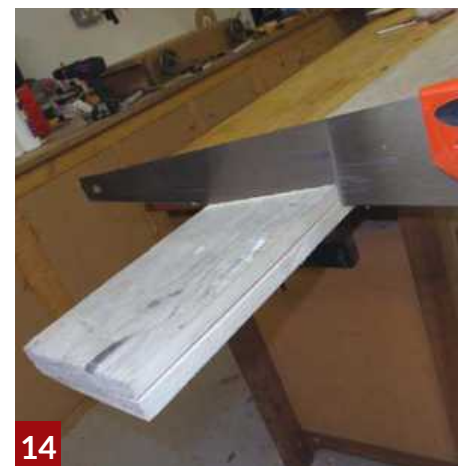
12 I upstood one board leaning against the workshop wall, then two pieces of board were clamped against it resting on the adjacent surfaces. All I had to do was draw a line along each board to get the correct angles. I estimated the finished size would be long enough.



13 I decided the angle just by eye and doing a few measurements to see where the shelves might fit in. Drawing along each board to mark out is the perfect way to get a scribed fit.



14 Next, both ladder sides were placed together and cut through as one – this meant they would match each other. ➤



Materials

We used reclaimed timber as it adds a certain look and texture, which new timber wouldn't give. We were also able to negotiate a reasonable price with the yard. You could also use prepared softwood, which will paint up just as well and shouldn't be too expensive. If you have a bigger budget, you could opt for ready planed oak (*Quercus robur*), with its wonderful grain and figure. Find something that works for you and materials you can obtain locally.

15 The shelves to go with the desk could now be made. These were all one board width except for the top one, which needed to be narrower because the ladder sides are cut at the wall angle. In all cases, the worn side of the upstand boards are facing inwards because I thought it looked better that way.

16 A small diameter piece of pipe was used for the shelf upstand corner marking out. Using a disc sander here is a fast, precise way of radiusing the top corners.

17 With one ladder side correctly positioned against the wall, I used a spirit level to make a horizontal line at desk sitting height – about 720mm. This was transferred to the other ladder side.

18 For all the shelves I copied the angle of the line using a sliding bevel. Armed with this I could measure up and down to set each shelf



position and draw along the bevel arm, which would allow me to get the exact correct angle that matched the desk.

19 Two clamps were lined up at each shelf position in turn, so respective shelves could be sat on them while being screwed in place.

20 The shelving was nearly finished but two brackets would help steady the whole assembly.





21



22

21 The top of each bracket needed to be cut at an angle, which would allow it to fit against the underside of the middle shelf.

22 The last major thing was making a shelf for storing A4 size paper sideways, as the boards were just the right width for that purpose. This was for the desk variant only. The shelf was made in the same way as before but without rounded front upstand corners.

23 It was screwed into place with one screw near the back at each end and a long slim screw in a pre-drilled hole from underneath, near the front.

24 I decided to use two different milk paint colours, courtesy of General Finishes UK. These are thick and creamy and one coat on bare wood proved enough. A bit of fine brushwork was required to reach into the corners. If you intend using it as a plant stand, then substitute milk paint for fence paint, which will withstand the weather.

25 The completed ladderback shelving should look something like this. ■



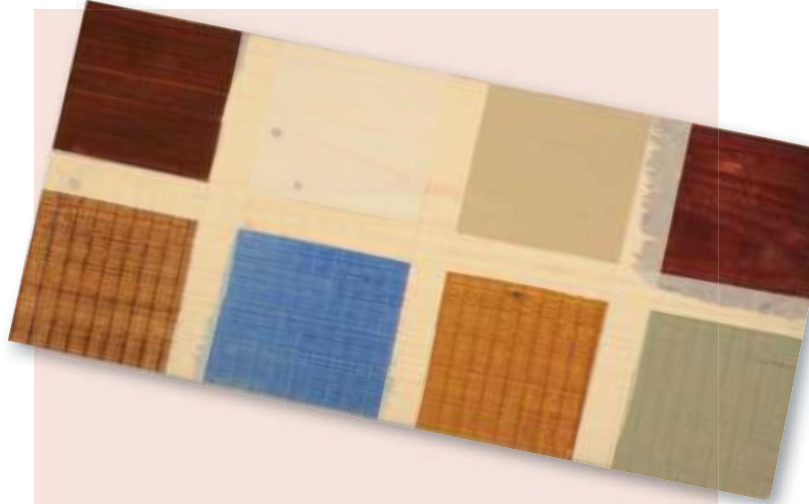
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24



25



Paint finishes

The paint finish we chose were two colours from the General Finishes Milk Paint range. They cover in just one coat and are exceptionally thick and creamy, unlike conventional emulsion paint. However, emulsion would work as well or you could even go for something more unusual like a silver finish, perhaps, applied over a light grey undercoat, or a strong colour rather than the pastel shades we used.

Web: www.generalfinishes.co.uk

PHOTOGRAPH BY TERRY FORDHAM

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NEWS & EVENTS

All the latest events and news from the world of woodworking...

Bentley Woodfair

Woodfair is a celebration of woodlands, forestry, timber, trees, woodcrafts and much more. The whole site holds two fields of stands, exhibits and displays and an amazing woodland full of demonstrations and activities.

Bentley Woodfair started in 1996 and continues to support local rural businesses and crafts while educating and entertaining families. With demonstrations of machinery, tree climbing, children's activities, lots of local food, a beer tent and a really great atmosphere, Bentley Woodfair celebrates its 20th anniversary, so be sure not to miss it.

On Saturday 19 September at 11.30am and 3pm, woodsman Ben Law – of Grand Designs fame – will be talking about the re-emergence of our woodland culture, from the importance of sound coppice management to timber framing for buildings. He will also be signing copies of his new book, *Woodland Craft*.



PHOTOGRAPH COURTESY OF THE BENTLEY BLOG

Above: Steve Jones and his wagon of curiosities at Bentley Woodfair



PHOTOGRAPH COURTESY OF BENTLEY.ORG.UK

Inset: A view from last year's Bentley Woodfair

Contact: Bentley Woodfair

When: 18–20 September, 2015

Where: Bentley, Halland, East Sussex BN8 5AF

Web: www.bentley.org.uk

Fangfest Festival of Practical Arts



A pole-lathe turner at last year's event

Fangfest Festival of Practical Arts is a celebration of traditional crafts. This year's event features a host of new attractions and interesting things for you to see and do. Expect to see demonstrations of traditional rocking horse carving and special Rocking Horse Shop offers will be available throughout the weekend on finished horses, plans, accessories and timber packs. There will also be demonstrations of bowl making using a pole-lathe and chainsaw carving, or why not have a go at clay pigeon shooting and archery?

Contact: Fangfest Festival of Practical Arts

When: 5–6 September, 2015

Where: Fangfoss, Near York YO41 5QH

Web: www.facebook.com/Fangfest

The Cranborne Chase Woodfair



PHOTOGRAPH COURTESY OF CRANBORNE CHASE

The Cranborne Chase Woodfair

The Cranborne Chase Woodfair has lots in store for you, including a variety of exhibitors and demonstrators from the wonderful world of wood, who will be displaying their products and skills.

Visitors will be able to see why shire horses are still one of the most effective means of logging; they can learn why wood is an efficient and renewable source of fuel and admire the traditional skills of a wide range of craftsmen and artists.

This year, the traders and exhibitors are being coordinated by booking agents, Bradsons. To make an enquiry, or to find out more, please call Katie on 01749 814088, or email woodfair@bradsons.co.uk.

Contact: Bradsons

When: 3–4 October, 2015

Where: Breamore House, near Fordingbridge, Hampshire SP6 2DF

Web: www.woodfair.org.uk

Record Power summer & autumn shows

During the next few months, Record Power will be appearing at various dealers' premises across the UK and Ireland to answer your questions and demonstrate products from their extensive range. At many of the events, exclusive show deals will also be available on the day.

When: 2–3 October, 2015

Where: WH Raitt, Main Street, Stranorlar, Co. Donegal, Republic Of Ireland

Web: www.whraitt.ie

When: 9–11, October, 2015

Where: 'The' Tool Show 2015, Kempton Park Racecourse, Staines Road East, Sunbury on Thames, Middlesex TW16 5AQ

Web: www.thetoolshow.com

When: 24 October, 2015

Where: Snainton Woodworking Supplies, The Poplars, Barker Lane, Snainton, Scarborough, North Yorkshire YO13 9BG

Web: www.snaintonwoodworking.com

The Surrey Hills Wood Fair

This year's event will be held once again in the grounds of Birtley House from 3–4 October, 2015. The event runs from 10am–5pm and there will be a variety of activities for all ages, including coppice crafts and wood products, trade stands, local produce, horse and wagon rides, demonstrations and a number of children's activities.

Tickets are priced at £7.50 for adults, children under 12 are free and you can also enjoy free parking.

When: 3–4 October, 2015

Where: Birtley House Estate, Bramley, near Guildford, Surrey GU5 0LB

Web: www.surreyhill.org

Right: Expect to see wood chippers, log makers, tree specialists and lots of eco-friendly stalls at the Surrey Hills Wood Fair



PHOTOGRAPH COURTESY OF ARTSPEPER.WORDPRESS.COM

Be sure not to miss...

Yandles' Autumn Woodworking Show

Taking place in the historic sawmill, this event attracts around 6,000 visitors from the UK and Europe and gives members of the public and professional woodworkers a chance to see what is going on in the woodworking world with free entry and parking.

There will be in the region of 50 manufacturers attending, including all the major names in the industry – see all their latest equipment and take advantage of special show offers.

In terms of demonstrators, expect to see a wide range of woodturners, woodcarvers and new for this year, a hurdle maker and willow demonstrator. This event also benefits from free entry and free parking.

When: 4–5 September, 2015

Where: Yandle & Son Ltd, Hurst Works, Hurst, Martock, Somerset TA12 6JU

Web: www.yandles.co.uk

PHOTOGRAPH COURTESY OF WWW.YANDLES.CO.UK



Expect to see a wide range of demonstrations and trade stands at this popular event

European Woodworking Show 2015

This event makes a welcome return this year and once again, will be held at the historic Cressing Temple Barns in Essex.

Although primarily a hand tool event, you can expect to see a wide variety of woodworking demonstrations, including woodturning, woodcarving, pyrography and furniture making, backed by trade stands. There are also competitions to enter and judge, masterclasses and timed demonstrations to attend, story telling for the youngsters, things to try and things to buy.

When: 12–13 September, 2015

Where: Cressing Temple Barns, Witham Road, Braintree, Essex CM77 8PD

Web: www.europeanwoodworkingshow.eu

PHOTOGRAPH COURTESY OF WWW.EUROPEANWOODWORKINGSHOW.EU



Carpenter Simon Jones will be appearing at this year's European Woodworking Show



Expand your woodworking skills with Greenwood Days

Greenwood Days courses

Greenwood Days has a number of exciting courses coming up this October. From 10–11 October, there is a basket making course and the 'make a greenwood stool' course; 12–14 October sees the longbow making course taking place, which will cover the techniques required to shape an ash (*Fraxinus excelsior*) bow using simple tools; 12–16 October is the Windsor chair-making course with Peter Wood – founder of Greenwood Days – and the course from 15–16 October covers rustic furniture, which will take you through the stages of designing and creating a simple garden chair using green wood.

With a great range of woodworking subjects, check out the website to find out more.

Contact: Greenwood Days

Web: www.greenwooddays.co.uk



PHOTOGRAPH COURTESY OF GREENWOOD DAYS

Former students with their handmade Windsor chairs

Handmade at Kew

This autumn, the Royal Botanic Gardens, Kew will be the location for an innovative new international craft fair, organised by Handmade in Britain. Housed in a pavilion next to Kew Palace, your ticket will not only give you access to the show but also to the whole of Kew Gardens.

Work by an international group of over 150 makers, designers, individuals and galleries, will embrace a range of disciplines including ceramics, glass, furniture, textiles, metalwork and jewellery. The event will also provide an opportunity to meet artists and craftspeople and learn about the ideas and processes that shape their work.

The event gives you the opportunity

Hall table by Nigel Northeast, who will be exhibiting his work at this event

to buy or commission work directly from artists and makers and it's a great day out for the whole family. Prices for advance one day entry start from £16 – see ticket hotline and website details below.

When: 8–11 October, 2015

Where: Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AB

Contact: Handmade in Britain

Tel: 020 7286 5110

Web: www.handmadeinbritain.co.uk

PHOTOGRAPH COURTESY OF HANDMADE IN BRITAIN

WOODWORKING IN THE NEWS

People of Melbourne are emailing their local trees

Since 2009, 40% of the 77,000 trees in Melbourne are struggling to survive or are dying due to a severe drought. This shocking statistic, affecting the 'garden city', has brought about a new trend of 'treemailing'. This came about thanks to the decision by Melbourne city council to map out every tree in the city, with a unique ID number. Since the emailing began, 3,000 emails have been sent to individual trees in the last two years.

Councillor Arron Wood explains: "Many of these trees were in a severe state of decline and we were staring down the barrel of losing up to 50% of our beautiful tree population. That would have fundamentally changed the way that Melbourne looked, the way it performed environmentally, the way people felt about it socially and even economically as well.

"So what we did is we actually mapped all the trees in the city. In doing so we had to assign each of them an individual tree ID and it was a logical step then to allow our residents to actually interact on a digital platform. And they could email whether a tree was dropping limbs or if it was in a severe state of decline and we could easily locate that tree and come out and intervene."

People soon began sending personal messages to the trees instead of identifying a tree in need of attention and emailing the council to get it done. The council is planning on planting 3,000 new trees a year to help the city breathe more easily, so the number of emails sent will be on the up for sure!

Contact: Melbourne Urban Forest Visual

Web: www.melbourneurbanforestvisual.com.au



The City Council's website, supporting the emailing trend

PHOTOGRAPH COURTESY OF MELBOURNE CITY COUNCIL

UKATA promotes free asbestos safety training

DIY enthusiasts and tradespeople running small businesses are to be offered free asbestos safety training that could save their lives, thanks to a new exclusive national campaign being launched by UKATA, the UK Asbestos Training Association.

Entitled 'Train Safe, Work Safe, Keep Safe', the campaign will see UKATA members offering free asbestos training during September and October this year as a means of highlighting the dangers of asbestos. This campaign is predominantly aimed at small companies and individual tradespeople who may not otherwise have previously known about, or received such training.

Every week in the UK, 20

tradespeople die from diseases caused by exposure to asbestos fibres before 1983, when strict safety guidelines on the use and removal of asbestos were introduced. Damage caused to the lungs by asbestos inhalation can lay dormant for up to 50 years and a huge number of late-stage cases are about to be diagnosed, says UKATA.

UKATA members are keen to offer training to individual tradespeople as they may be unaware of the regulations or the dangers of asbestos. As committed professionals, UKATA members believe that offering free asbestos awareness training is a way of delivering the message to this sector of industry and their generosity is commendable.

UKATA sets standards in asbestos training and ensures members meet those standards. It launched its new campaign, Train Safe, Work Safe, Keep Safe, at the Safety and Health Expo – 16–18 June – at ExCeL, London.

Contact: UK Asbestos Training Association

Web: www.ukata.org.uk



BOOK REVIEWS

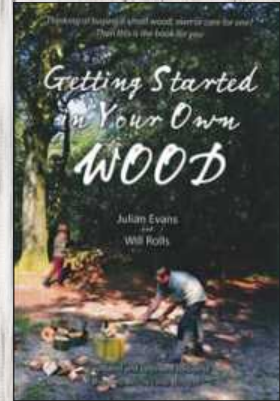
We review three books for you to enjoy

Getting Started in Your Own Wood

by Julian Evans and Will Rolls

Julian Evans and Will Rolls have updated and extended their *Badgers, Beeches and Blisters*, into their new book *Getting Started in Your Own Wood*. The book is aimed at those who are interested in buying a small piece of woodland – an ever increasingly popular subject – or those who already own or care for a patch of woodland.

This is very much a text-based book, with only a number of illustrations. Julian and Will have released this book with a commitment to the care and stewardship of woodland resources. The book provides practical advice and guidance on owning woodland and for those who are coming into woodland management for the first time. Each chapter has been revised and there are now two extra chapters, added by Will Rolls. These chapters look at firewood and tree pests and diseases. *Getting Started in Your Own Wood* also addresses: first steps; planting and caring for trees; crafts, products and firewood; enriching wildlife and natural regeneration; coppicing, pollarding, pruning and thinning; and finally, advice and where to get help. A great read to learn about caring for woodlands!



ISBN: 9781856232128

Price: £12.95

Web: www.permanentpublications.co.uk

The Log Book: Getting The Best From Your Woodburning Stove

by Will Rolls

This revised and extended edition of *The Log Book: Getting The Best From Your Woodburning Stove* now has a guide to choosing a stove and information on accessories, such as heat fans and temperature gauges, alongside the already information-filled chapters printed in the first edition. Chartered forester and wood fuel expert Will mentions how 'using a woodburning stove effectively is both an art and a science' and he does his very best to educate in both areas.

This friendly and comprehensive guide talks you through the theory and practice of getting the best results possible from your woodburning stove. It is an easy-to-read guide and, although text-based, the illustrations are clear and labelled. Will also looks at finding fuel and seasoning it, to lighting the stove and operating it cleanly – from the very beginning of the process to the end and back again!



ISBN: 9781856231572

Price: £7.95

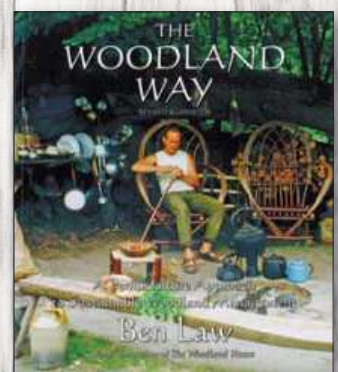
Web: www.permanentpublications.co.uk

The Woodland Way: A Permaculture Approach to Sustainable Woodland Management

by Ben Law

This is Ben Law's revised and updated *The Woodland Way: A Permaculture Approach to Sustainable Woodland Management*, from his 2001 classic. Immediately obvious is the great amount of information included in the book, which you can see just from looking at the contents page. Chapters include; 'Woodlands from the wildwood to the 21st century'; 'The 21st century & the return of the forest dweller'; 'Woodland assessment & management planning'; 'Establishing new woodlands'; 'Management of woodlands'; 'From tree to finished product'; 'Woodland management and the law' and finally, 'The future'.

Ben has written this book with years' of experience behind him and he demonstrates all of his points clearly. He presents a range of practical and tested alternatives to conventional woodland management, arguing the case for a new approach to the subject. Ben looks at the planning of woodland management and encourages the creation of permaculture woodlands for the benefit of the community, the local environment and the global climate.



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PHOTOGRAPHS BY MICHAEL T. COLLINS

Create a simple panel door *with basic hand tools*

Our Man In America, **Michael T Collins** deals with the age-old problem of panel movement

Right now the humidity outside my air-conditioned workshop is around 85% and climbing and all of the wood in my workshop is swelling. It's a fact: wood expands and contracts and when making furniture you have to account for these fluctuations.

Cabinet carcasses are generally constructed so expansion happens front to back, thus minimising the effect. A door made from long grain members is relatively static, while a panelled door is very much dynamic, expanding and contracting across its width with the seasons. So the problem is to fit a dynamic panel into a fixed

space, which seems like an exercise in futility.

Enter the panel door, which allows the frame to remain static while at the same time allowing the panel to expand and contract within a groove.

In *Woodworking Crafts* Issue 1 I showed you how to cut mortise and tenon joints. For this project, the mortise and tenons are laid out essentially the same way, but I am also going to introduce a few new techniques. The rails and stiles of this door will have a groove to accept a panel allowing for seasonal change. The mortises are going to be through mortises to add visual interest.

Michael T Collins

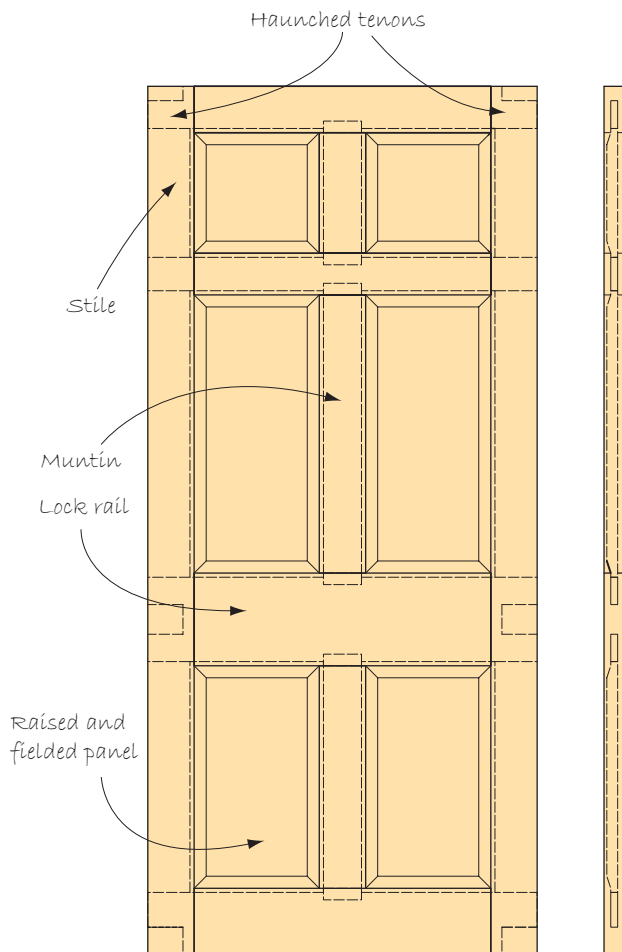
British-born Michael has been working with wood off and on for 40 years. He moved to New York in 1996 and over the years, has made bespoke furniture, including clocks, inlay work, Adams fireplaces, book cases and reproduction furniture.
Web: www.sawdustandwoodchips.com
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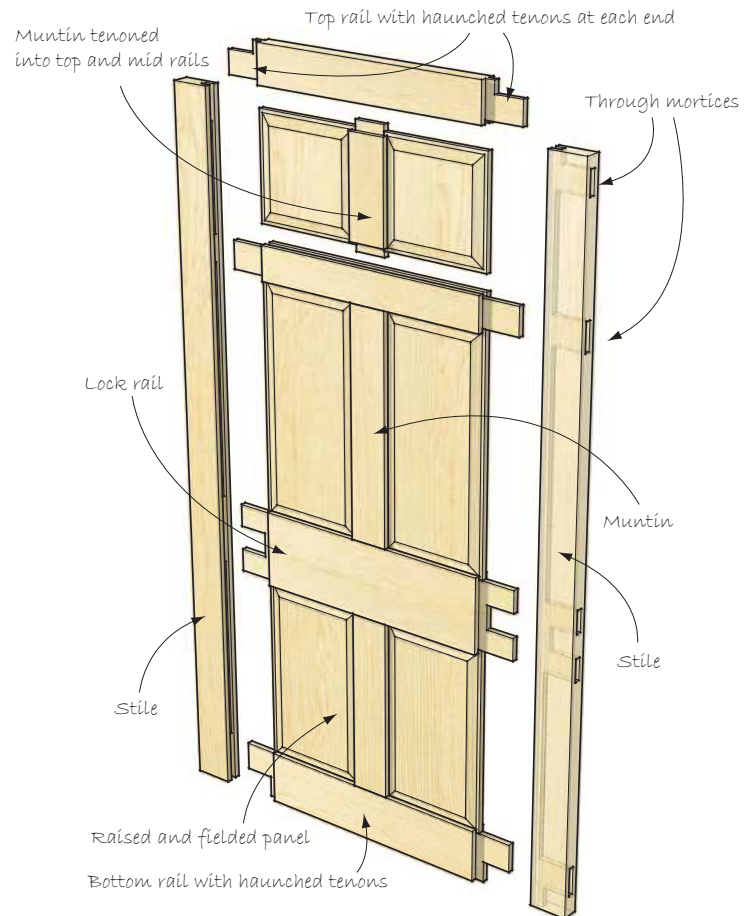
Making the frame

1 If you are making two or more doors it looks better to have the grain of the rails and stiles flow through the piece, so cut them from the same board. Doing this also helps with colour; wood cut from the same board will generally have the same characteristics. Here you can see how the board will be cut for two doors.

2 Having prepared the wood, mark the face side and face edge, leaving an additional 30mm horn at each end of the stiles; this will prevent the mortises bursting out when chopped. Leave about 10mm extra length on



SIX PANEL DOOR, FRONT AND SIDE ELEVATION



the tenons. As you can see, here I have used a cabinetmaker's mark to orientate the pieces. I always fit doors to a cabinet, recording measurements directly from the opening onto 'story sticks'. When I started making furniture I used two story sticks, one for rails and one for stiles. Label them clearly – believe me, it will help you later! Record the maximum rail and stile length of the opening on the story sticks, then use the stile's width to mark the tenons' position and the rail's width to mark the mortise on the story stick. The next step is to mark the location of the groove and horns. At this point, you should have all measurements recorded on the story sticks.

The tools

3 It's time to add a new 'necessary tool': a plough plane. There are many varieties readily available online. I have two in my collection – an antique wooden plough plane and a Stanley 45 combination plane. The 45 offers greater flexibility allowing all manner of profiles to be cut while my antique wooden plough plane only cuts grooves. ➤





Preparing the joint

4 By now you should be familiar with the process of making a mortise and tenon joint: using the story stick, mark the location and length of the tenons on the respective pieces. Here I have set the mortise gauge using the width of the chisel.

5 Mark out the tenons on the rails, scribing round the ends, then set the rails aside.

Chopping the mortises

6 Mark the mortise location using the same gauge setting. The only major difference with creating panel doors is that the mortises go all the way through the stiles. Using a pencil and the story stick, mark the mortise's upper and lower limits on both sides of the stiles.

7 Take the mortise gauge setting and scribe the mortise location between these limits on the stiles. Because the stiles will have through mortises, scribe the location on the opposite edge.

8 Start chopping the mortises about 1.5mm from one end with the bevel facing the direction of travel and chop out the mortise walking the chisel towards the end of the mortise; don't go all the way through. Repeat in the opposite direction – pay particular attention to keeping the chisel vertical. You can use a try square to help you.

9 Chop halfway through and clean up by chiselling vertically down on the pencil lines. Only remove chopped wood here.

10 Repeat the process on the other side – the reason for chopping from both sides is that you have a great deal of control at the start but no matter how hard you try, the chisel may miss the mark on the way out the other side; this method guarantees that the edges of the mortise will be crisp.

Cutting the tenons

11 In the past I have sawn the shoulders first then the cheeks; however, because I will be planing a

groove on the inside of these pieces, only the cheeks are sawn initially. There are two reasons for this: a) if the cheeks are removed planing the groove would be difficult at the tenons because the plane's fence would not be supported and b) if the groove is planed first it would be hard to saw the tenon. Set the tenon stock in the vice at 45° and on the waste side saw down to the lines – rotate and repeat – saw out the triangle of wood at the bottom of the kerf.

Planing the groove

12 The Stanley 45 has infinite adjustability but I am only concerned with three adjustments for this groove – setting the depth stop to 10mm using the width of the chisel...





13



14

13 ... setting the plane's fence so that the cutter is positioned in line with the mortise and tenon ...

14 ... and lastly, adjusting the cutter's depth; just like any plane, the setting of this will depend on the type of wood and the grain. You will need to experiment with this. Take it slow and adjust as needed. Better to take thin shavings and take longer than work quickly and shave off too much.

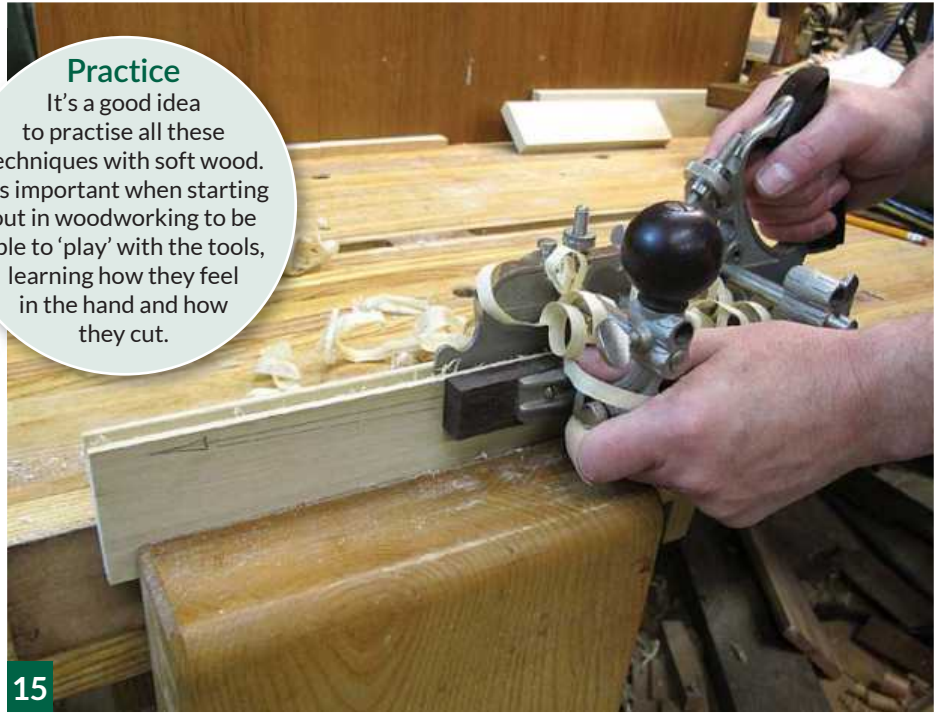
15 Starting from the end furthest away from you, plane the groove, taking longer and longer passes as you approach the end nearest to you. The plane will stop cutting when the depth stop bottoms out. Try not to run the cutter on the wood during the backward travel – in hard wood this can dull the cutter. It's important to keep the plane vertical – any side to side angled movement may tear the wall of the groove making it unsightly. Ideally, you should plane in such a way that the grain is rising up away from you.

Alternative method of cutting the groove

16 If you do not have access to a plough plane, use the mortise chisel to pare away the groove. Score the entire length of the rails and stiles with a mortise gauge, then, with the bevel down, pare away the groove, starting at the end furthest away. To slow the forward movement while paring, anchor your non-dominant

Practice

It's a good idea to practise all these techniques with soft wood. It's important when starting out in woodworking to be able to 'play' with the tools, learning how they feel in the hand and how they cut.



15

hand on the wood while your dominant hand controls the forward movement. This method offers greater control and keeps both hands behind the sharp end!

17 Once the groove is planed, and the cheeks are removed, the tenons will have a very thin piece of wood separating the edge of the tenon and the groove. Simply break this off and trim with a knife. Repeat this for the other tenons.



16



18

The haunch

18 Because the groove extends the full length of the stile there is a gap at the top and bottom that will need to be filled. To hide this, the tenon will need to be cut, leaving a small section called a haunch. Approximate this by superimposing the tenon on the mortise.

19 Then saw the tenon to just over size and test the fit. Pare away any excess until the fit is perfect. ➤



17



19



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21



22

NEXT MONTH...

Michael will look at breadboard joints and continue adding to your woodworking skills

Making the panel

20 Here I am going to make a simple raised panel from two pieces of oak (*Quercus robur*) using a rubbed joint, which was covered in 'Making a table top' in issue 2. Plane the mating edges of the pieces at the same time. This will create an almost perfect fit.

21 Apply glue to one edge and rub the boards together until friction holds them in place. Once dry, plane the face side flat.

22 We need to allow for seasonal changes, so cut the panel 4mm narrower than the distance between the bottom of the stile grooves. The height only needs be 2mm shorter – wood does not significantly expand

along the grain. Once cut, mark a chamfer around the panel and plane to just a hair under 10mm. We want this to fit the groove but not be too tight. Planing a chamfer will create a slightly raised panel.

23 Apply finish prior to assembly and let dry. If applied after assembly, the finish can glue the panel into the groove. Assemble, clean up and finish. Dry fit the frame and check all the joints seat well.

24 Apply glue to all mating surfaces, taking care to not get glue in the grooves. Reassemble, clamp and measure across the diagonals for squareness. Once the glue has dried, saw off the horns and tenons to within about 1mm and plane flush. Plane



23

off all markings. On small doors it's a good idea to chamfer the inside edge of the stile opposite the hinge so that it closes nicely.

25 Careful layout, accurate cutting and patience will reward you with well-fitting joints. ■



24



25

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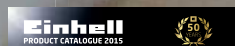
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CLEAVING WOOD

Green woodworking expert Peter Wood shows us the correct way to cleave logs ready for turning or shaping

PHOTOGRAPHS BY PETER WOOD

History of cleaving

Cleaving wood to size dates back thousands of years with Native Americans on the Oregon coast cleaving long lengths of cedar (*Chamaecyparis lawsoniana*) for their lodges and Vikings cleaving planks of oak (*Quercus robur*) and other woods to make their longboats. It's low impact, uses simple tools and the wood can be converted where it's felled, making extraction easy.

In this article I will be exploring the process of cleaving wood; that is splitting the wood along its length, peeling its fibres apart to convert any size of log into a size suitable for handling or a size ready to shape into whatever product you are making.

We cleave wood when it is green, when it hasn't lost its moisture and still has some sap inside, as the wood seasons, the sap hardens acting like glue helping to bind the wood together and making it much harder to split. Try chopping firewood with a mixture of green and seasoned wood and you'll soon see the difference.

Some species of wood cleave well such as ash (*Fraxinus excelsior*), beech (*Fagus sylvatica*) and oak, while others can be problematic, older elm (*Ulmus procera*) trees are almost impossible to cleave, although this makes them ideal for chair seats and chopping blocks.

When you've selected the species you want to cleave, look at how the wood has grown. You can tell a lot from the bark, noting knots which make cleaving harder or the bark may spiral up the tree, which means your split will run on a twist.

1 Once we've felled our tree we can see if the wood is evenly grown or, as in this example, is offcentre and with uneven growth. For your first cleave, if you have a choice, I'd move onto a different stem.

2 Here we have a lovely example, the growth rings are evenly spaced and the pith runs straight down the middle. If you looked at the other end of this butt, then the centre would still be nice and even.

3 You'll only need a few tools to cleave; to start off with a simple club/maul, some wedges, wooden or metal, and I like a hatchet for starting my split and later cutting any fibres that are holding the wood together.



4 When working with heavy timber, look after your back so cleave your stem in half and maybe in quarters if it's particularly straight, which will make it much easier to carry. I start by knocking my axe into the top half of the end. If there is already a split starting, use this as your guide as long as it looks to be going in the right direction. The basic rule in all cleaving is to always have an equal mass of wood on both sides of the split. The wood will then open straight down the middle and shouldn't run off. With smaller pieces, you can control this using a cleaving break but for this larger log, I've trusted my judgment.

5 I don't cleave straight across as the split may not 'want' to follow straight across. Here you can see the split has started at an angle but it's very much a feeling process and if the wood wants to go this way, then let it!

6 Once the split is moving along you can start chasing it along the length using either another axe or series of wedges. A good log will literally 'pop' open. Here is a tip for you: I've knocked in a second axe to open the wood but it would be better to have the handle turned around by 180° as, if you need to add another wedge, the handle is in the way! You should only need a couple of wedges as you can chase the split along the wood removing the previous wedge, leapfrogging each wedge. If the split is running off, then you can knock the next wedge in to one side to correct the run off.

7 Here you can see one length of wood cleaved in half and ready to examine what the grain is like inside. You can see what knots there are, how straight the grain is and cut the wood to avoid any problem areas. On this log you can see a spiral along its length; this will not be a problem when I cut it into shorter lengths.

8 One side of the log was particularly free of knots so I carried on cleaving until I had some lengths ready for steam-bending. I'll be covering steam-bending in another article.

9 Sometimes the wood is not helpful at all and refuses to open up. This can be due to where it was grown, soil conditions and light levels. Here I'm cleaving the butt end of the wood.



At the butt end, the grain locks together which makes for very strong wood but consequently makes it very difficult to split. I'll use the axe to sever the fibres and continue cleaving.

10 With my initial cleaving the splits are run radially, that is each piece is cleft from the central pith to the edge. As the parts get smaller and closer to size I can split tangentially, that is parallel to the growth rings rather than perpendicular to them. Here I am cleaving tangentially while trying to direct the split. The upper section is smaller so the split will tend to run off upwards; to counter this I put pressure downwards towards the larger side, which causes the split to move downwards and back into line.

Over my last few articles, I've looked at tools of the trade, turning on a pole-lathe and cleaving; this gives us the basic skills to tackle our first project, a three-legged stool using green/cleft wood turned on a pole-lathe, which I'll cover in my next article. ■



Peter Wood

Peter has been a skilled green wood craftsman making Windsor chairs and other creations for over 25 years. He set up Greenwood Days in the National Forest as a centre to teach a range of traditional and contemporary crafts. He is also the current world champion pole-lathe turner!

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FAN display case

Louise Biggs
constructs a display
case to exhibit an
antique fan

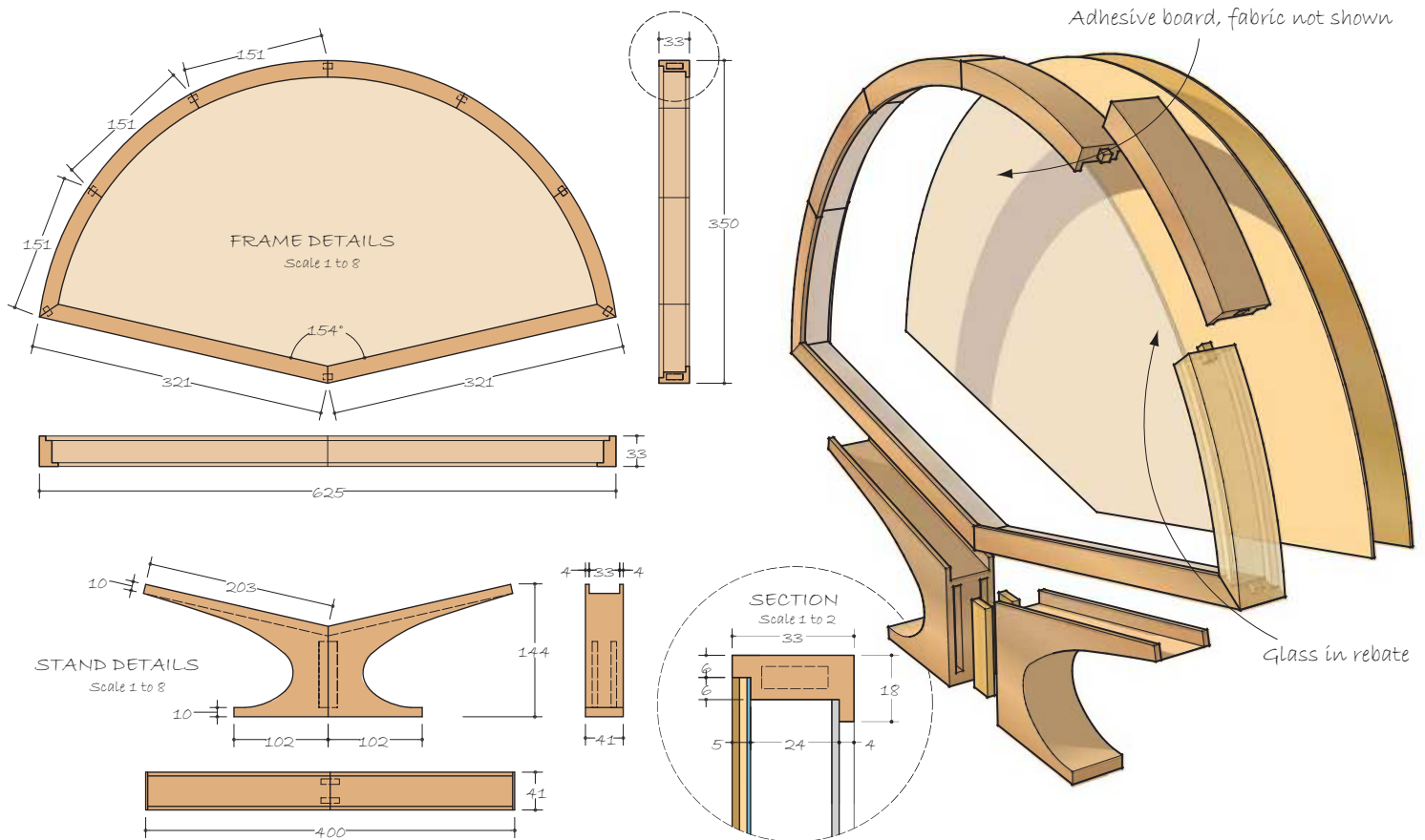
I was approached by a lady who had recently bought a fan from an antiques market in Spain. She had seen in my portfolio a pair of fan cases and stands that I had restored and asked if I could make something similar – with little wall space she felt this might be the best solution for displaying her fan. The best approach was discussed and dimensions and choice of timber – European oak (*Quercus robur*) – were established and approved.

PHOTOGRAPHS BY LOUISE BIGGS



WHAT YOU WILL NEED:

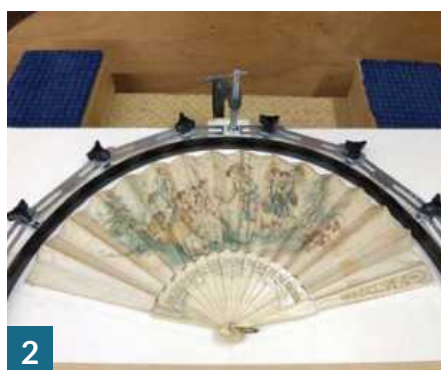
- Flexible curve
- Card, knife and straightedge
- Tablesaw and mitre fence or mitre saw
- Bandsaw or coping/jigsaw
- Router and table
- 6mm straight and trim rebate cutters
- Sliding bevel and protractor
- 'G' clamp
- Round and flat based spokeshaves
- Square
- Rasps
- Abrasives
- Strap clamp
- Adhesive covered board
- Needle and thread
- Fabric
- Latex adhesive
- Stapler
- Brown gummed tape
- Personal Protective Equipment (PPE)
 - eye and breathing protection



1 The first step is to lay the fan on a piece of card and line up the centre point of the fan with that on the card. Clamp a large flexible curve at the centre point, 12mm from the top centre point of the 'leaf' and tighten the adjustment point. Move each point in turn locking the curve 12mm from each point of the 'leaf'.

2 The flexible curve now follows the outline of the 'leaf'. Mark around the curve with a pencil and then mark the two bottom edges so they are 12mm from the top point of the 'guards' and in line with the point where the 'guards and sticks' are joined at the 'pin'. This will mark the inner edge of the frame.

3 The two halves of the fan shape may differ but keep the frame even. Cut the middle from the template and turn the card over; this will indicate any differences and any final



Flexible curve

Needing something that could be accurately adjusted to the shape of the fan and that would retain the shape of the curve for the duration of making the frame, I sourced a large flexible curve. With the ability to form internal and external radiuses it was ideal and would be useful, when required, for future projects.

Price: £48.46 (Inc. VAT)

Web: www.axminster.co.uk

adjustments can then be made. You can mark the points out on the card and use a draughtsman's flexible curve or a thin dowel bent to the points marked, but you probably won't retain the shape when moving to repeat the other half of the template.

4 Divide the curved rim into six sections. Measure and prepare the timber. Initially, keep the sections square but they must be wide enough to cut the shapes from. Using the template, cut each joint in turn. Use a sliding bevel to mark the angles and a tablesaw with a mitre fence or a mitre saw to cut them.

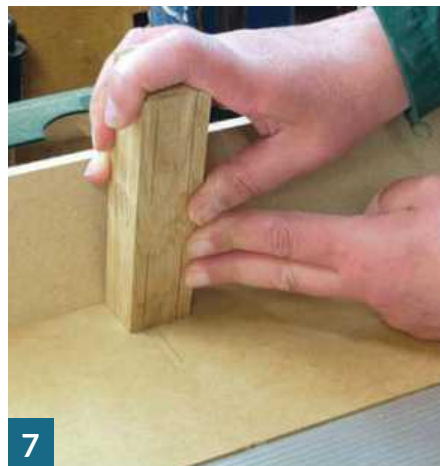
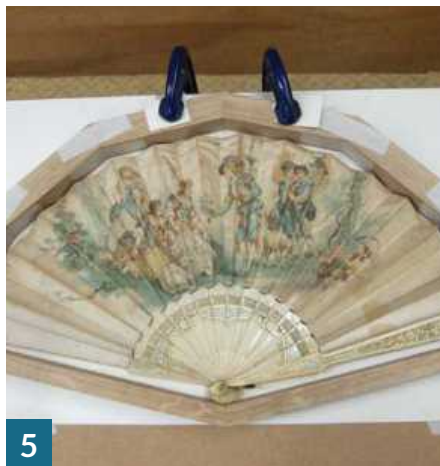
5 Once the curved rim is formed, cut the joints for the two bottom sections. Mark and cut the angles as you did the rim. Cut the first angle where it joins the rim and then set a stop on the fence for the other angle at the right length. Once you have cut the joints on all the sections, clamp and tape the pieces together, check the size against the fan and make adjustments.

6 Line the template up with the bottom edges, which are the correct width – 18mm – and draw the shape on the rim sections. Mark the loose tongue joint positions. Be careful to position these correctly, as you have two rebates to cut for the glass and the backboards. If the positions are wrong the result will be exposing the tongues inside when you cut the rebates.

7 Set a 6mm straight cutter in a router on a table, then mark the position of the cutter on the table and stop lines on the frame sections. Carefully, cut the grooves for the tongues using the stop lines marked.

8 Fit the ply tongues, clamp the frame with a strap clamp and check that everything pulls together correctly. Only glue up the six sections that form the curved rim but clamp as before as this will keep the shape correct.

9 Cut the inside edge of the rim using a bandsaw or by hand with a coping saw. Use a curved base spokeshave to clean up the inside of the rim, working from both directions – from the joints to the centre of each section – so as not to tear the grain. Check the joints with the bottom sections and the shape against the flexible curve.



10 With the internal curve correct you can now begin to cut the outside of the rim. Use a flat base spokeshave, this time working from the centre to the joint of each section. Finish the rim to 18mm wide.

11 Use a trim rebate cutter with a bearing to form a 6mm rebate on the router table. Cut the straight sections using the standard fence and set the curved section up to run on the bearing while protecting the cutter as much as possible. Shape a piece of waste timber with a rebate to allow for the cutter, remove the front corners and clamp firmly in place.

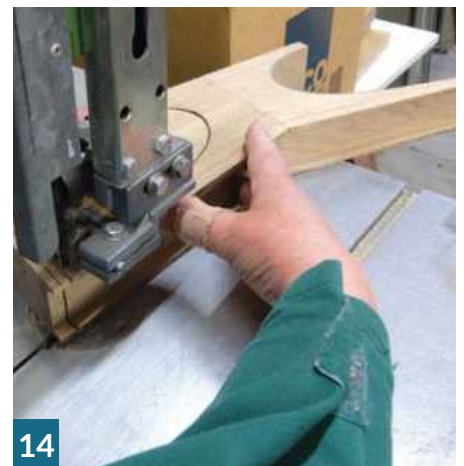
12 You are now ready to cut the inner glass rebate in stages first to the required height. Then, cut the second rebate for the backboard running the bearing against the rebate formed for the glass. Glue up the remaining sections of frame and, when dry, clean up the frame with abrasives to 240 grit or finer.

13 Form a template for the stand and prepare the timber running the grain with the top edges. Cut the angle for the centre joint on the tablesaw with a mitre fence, then on the joint faces, cut the grooves for the loose tongue joints. Before gluing, cut the rebate in the top edges to take the frame.

14 Using the mitre fence on the tablesaw, cut the stand to height. This will form the flat bottom and using the bandsaw, cut out the curved shape on either side, which can then be refined and cleaned up using rasps and abrasives. Coat the frame and stand with several coats of finishing oil, denibbing between coats.

15 The next step is to tape the centre of the original template on a slightly bigger piece of card. Take a 5mm-thick piece of ply held against the small template and trace round the edges. This will create a template 5mm larger for the glass while making a 1mm all-round allowance for the glass to move.

16 Lay and tape a piece of 2mm glass over the template and use the template as a guide to cut the glass to shape. Alternatively, if you are not comfortable doing this, a glazier will supply and cut the glass for you. ➤



17 Place the frame over a piece of 2mm hardboard and draw around the back rebate to mark the shape of the backboard. Cut out using a bandsaw or jigsaw. Check the fit in the back of the frame and make any necessary adjustments. Cut the adhesive covered mountboard – available from art shops – to match the backboard, place both pieces in the frame and position the fan. You will need to make a small cutout using the drill and coping saw through both boards to allow the pin and the loop of the fan to pass through so the back of the fan sits flush on the board. This can then be covered with fabric, making sure that the fabric also passes through the hole.



18 Allowing for two thicknesses of fabric, cut the board strips to the right width, which will form the strips to hold the glass in. Mitre the ends of the strips and cut to fit the frame. Cover the adhesive strips with the fabric and then fold the edges round the back and adhere with a latex adhesive, such as Copydex.



19 You can then clean the glass and place within the frame and then carefully, using the latex adhesive, glue the fabric covered strips around the inside of the frame.

20 Position the fan on the fabric covered mountboard and using a sharp needle and fine strong thread – I used flyline backing line used in fishing – tack the fan into place by passing loops of thread over several of the 'sticks'. Tie these off at the back and tape the ends, which will stop them coming loose.



21 Place the fan and backboard within the frame, check that the frame is clean inside and staple or pin into place.

22 Tape the back of the frame using brown gummed paper, trimming off any excess on the curved rim with a knife.

23 You now have the completed frame and stand. If you prefer, you can just make the case and hang it on the wall. It only remains to thank my friend for teaching me the principles/techniques of mounting the fan without causing any damage. ■



Louise Biggs

Having completed her City and Guilds, Louise trained for a further four years at the London College of Furniture.

She joined a London firm working for the top antique dealers and interior designers in London, before starting her own business designing and making bespoke furniture and restoring furniture.

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PLANS ⁴ YOU

Welsh dresser

Simon Rodway shows you to how to make your very own Welsh dresser

CUTTING LIST

Top section

Top	1 @ 1,320 × 260 × 20mm
Sides	2 @ 1,120 × 280 × 20mm
Back	1 @ 1,320 × 1,120 × 12mm
Shelves	3 @ 1,320 × 140 × 20mm

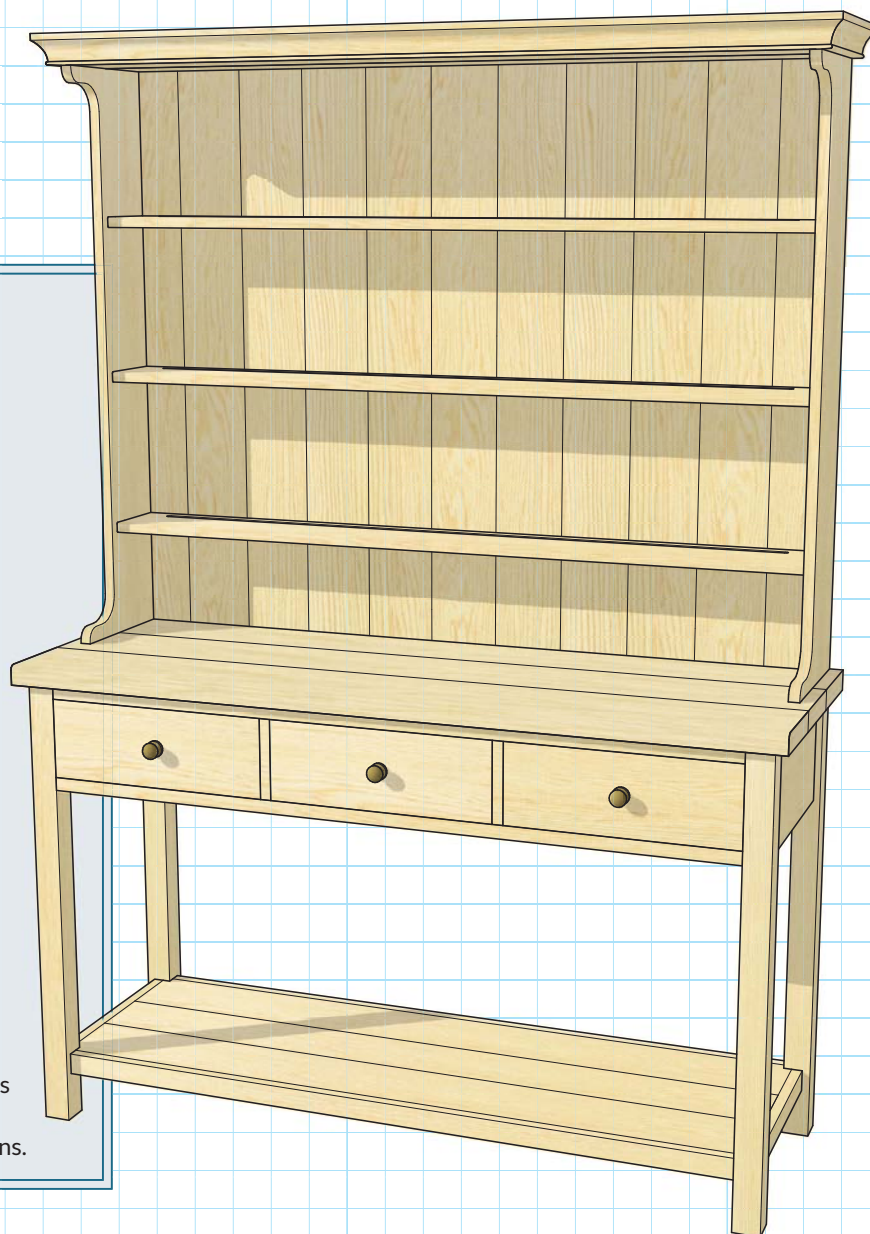
Bottom section

Top	1 @ 1,390 × 495 × 38mm
Legs	4 @ 860 × 50 × 50mm
Side rails	2 @ 402 × 200 × 20mm
Back rail	1 @ 1,300 × 200 × 20mm
Drawer rails	2 @ 1,300 × 50 × 25mm
Dividers	2 @ 445 × 150 × 20mm
Runners/kickers	4 @ 395 × 70 × 25mm
Runners/kickers	4 @ 395 × 38 × 25mm

Pot board

Top	1 @ 1,270 × 390 × 20mm
Front/back rails	2 @ 1,290 × 40 × 20mm
Side rails	2 @ 410 × 40 × 20mm
Battens	2 @ 1,270 × 20 × 20mm
Battens	2 @ 350 × 20 × 20mm

Principle components listed. Cornice, drawer spacers and drawers not included. Overall sizes on some components shown, which may be made up in sections.



Nowadays, Welsh dressers are often made with a cupboard below the drawers, providing additional storage space, but many of the traditional examples of this fine addition to the kitchen or dining area have an open space at the bottom, with a pot stand or board providing a substantial shelf at a low level. Personally, I prefer this type of design visually and it has the added advantage

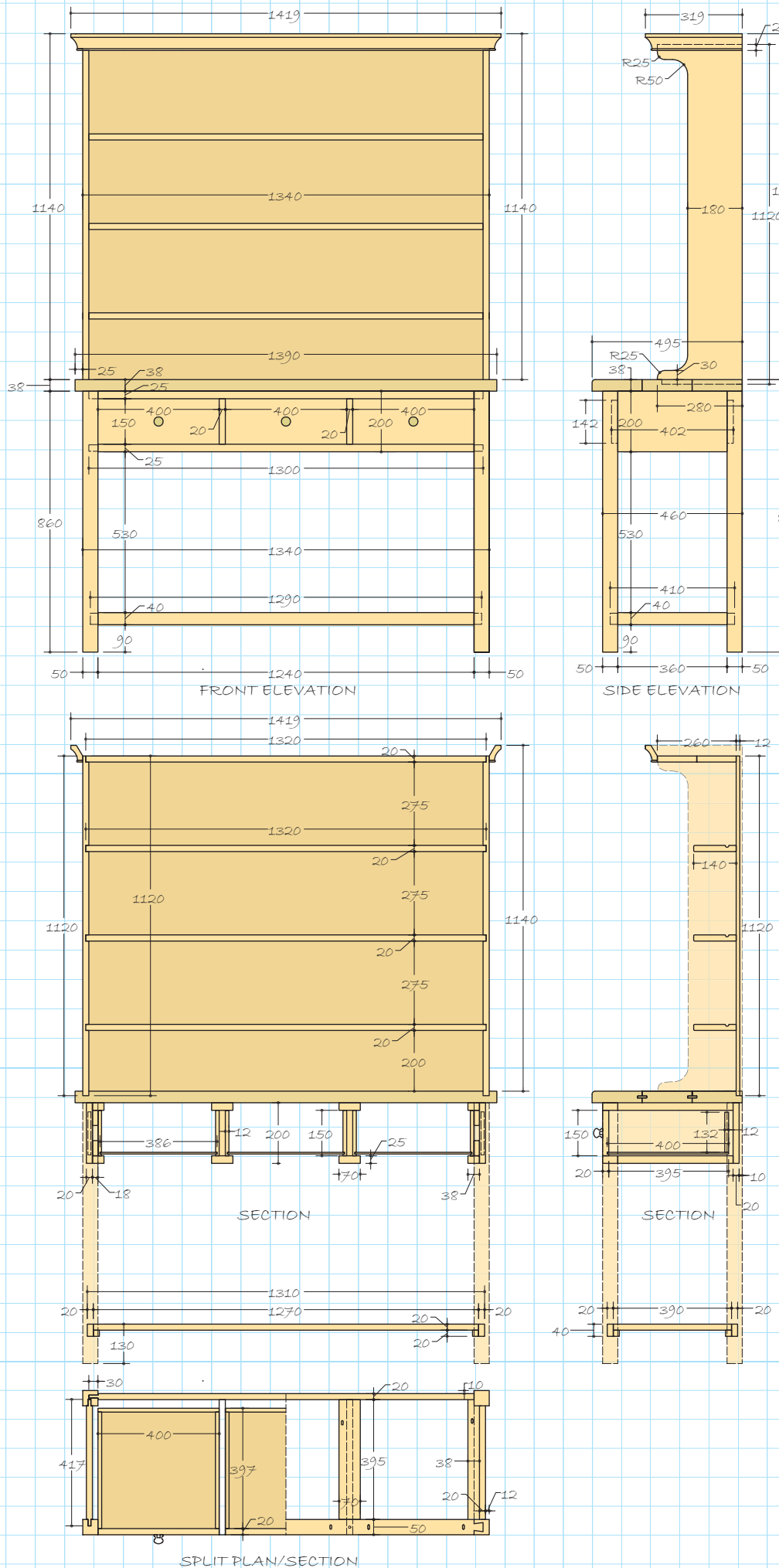
here of using fewer materials and a shorter build time.

Having said that, this project is clearly a big step up from some of my recent designs and the construction techniques required are mainstream traditional woodworking: mortise and tenon joints, dovetails and stopped housings abound. I've provided a very detailed set of drawings with this one, so I'm only going to cover the main

points to look out for in making the dresser.

Dresser breakdown

Essentially, dressers can be divided into two sections: the top with cornice, shelves and back and the base with a table type structure comprising a top and legs joined with side, front and back rails. The top has a plywood back shown in the drawings, but use ➤



tongue & groove pine (*Pinus sylvestris*) back for a more traditional look – especially if you intend just varnishing. The cornice is made up from two different sections – choose your own here – and fixed to a solid top rebated into the sides. The shelves have stopped grooves on the top face towards the back, which allows for plate display.

The bottom

The bottom section has a fairly chunky top joined in sections using ply tongues. I've used oak (*Quercus robur*) as this will take a bit of wear and tear, plus it's a contrasting timber colour and type and should be left unpainted. There are also full width stopped housings in the top, which allow you to take the tenons at the bottom of the shaped sides.

The top and sides

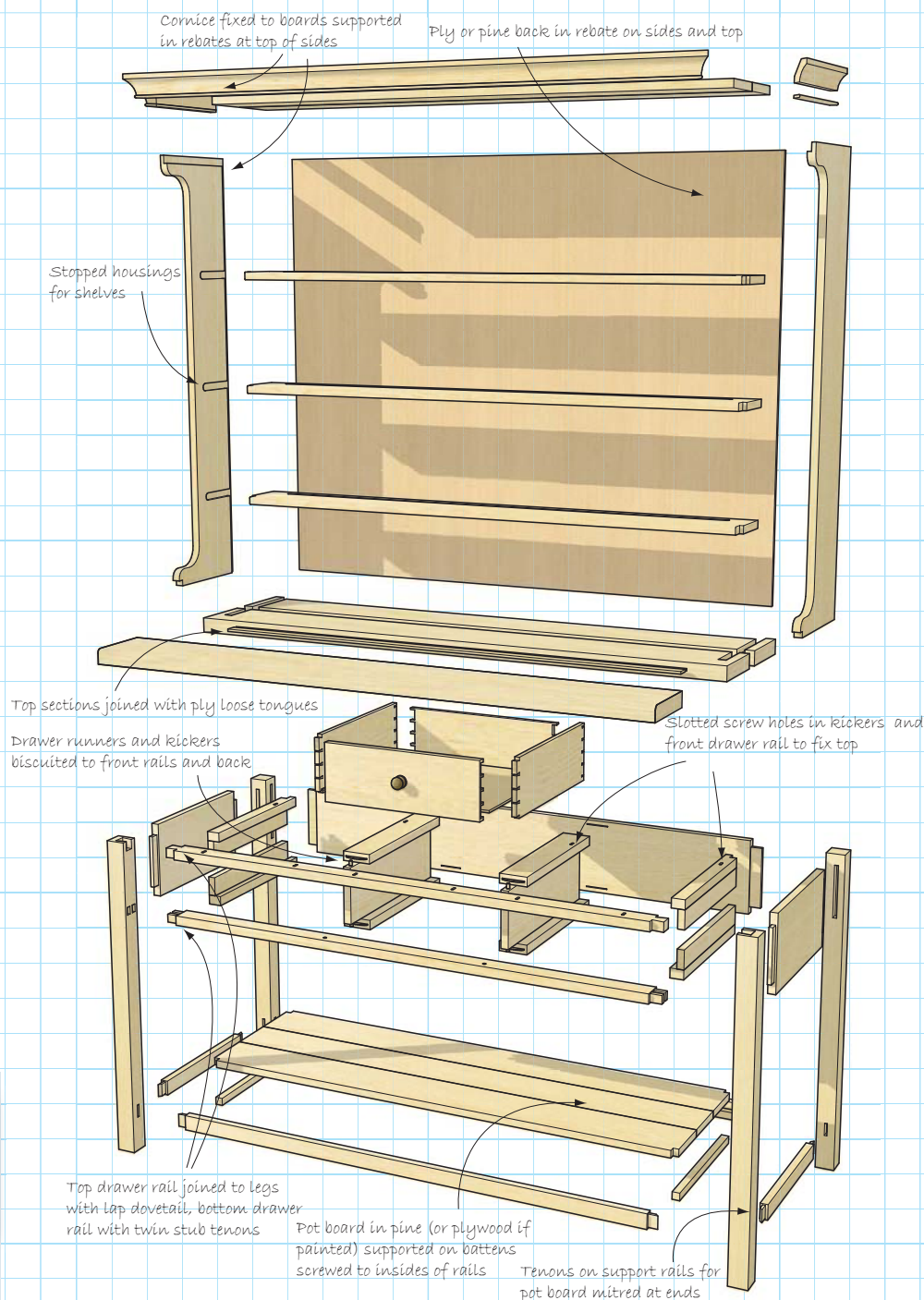
The top is fixed to the base through slotted screw holes – at right angles to the grain direction – through the kickers and top drawer rail. This rail has lapped dovetails at the ends into the tops of the front legs to tie the structure together at its weakest point, with the bottom drawer rail having twin stub tenons, which give strength and a greater glue area. The side rails have a reduced height tenon at the front to clear the drawer rail tenons.

Joints

I've shown biscuits joining the kickers and runners to the front and back rails – the side runners and kickers can be screwed to the side rails – a modern variation. Alternatively, use stub tenons here as well. The dividers are screwed through top and bottom to the runners and kickers and are also dowelled at the front to the drawer rails.

The pot board is supported by battens screwed to the inside faces of the lower rails. These rails also help to give the construction greater strength by tying the legs together at a low level. The tenons are shown mitred at the ends to allow more length. The pot board itself is again a choice between plywood, if you are painting the dresser, or solid

pine boards, cut out at the corners around the legs. The drawers are a traditional dovetail construction with grooved sides and front for the ply bottom. All-in-all, this is a project to give your skills and toolkit a fairly good workout and definitely something to be proud of once it is eventually finished! ■



Simon Rodway

Simon Rodway also runs LineMine, a website with articles and online courses on drawing software. A new course, 'SketchUp for Woodworkers', is starting this month. For details and to get discount coupons, see website details below.
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A new panel sizing saw specifically designed for the smaller workshop! The new Scheppach Forsa 3.0 offers 1.6m panel cutting capacity with the advantage of a full 87mm depth of cut for solid timbers. Like all Scheppach Precisa and Forsa sawbenches the Forsa 3.0 is bristling with German technology from head to toe. Designed specifically for those who where floor space and budget are foremost in their considerations. Micro scale with settings to within 1/10th mm on the rip fence included. Available in either single or three phase electrics.



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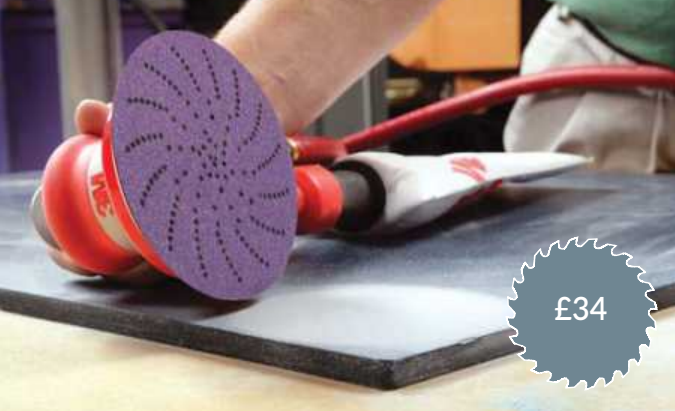
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Model	Product Group Series	Specification Includes (as per quoted price)	Mc HP / Scorer / Volts	Depth of cut & length of stroke	Price Exc VAT - Plus Carriage	Price Inc VAT - Plus Carriage
Forsa 3.0	Professional	Inc Professional STC + TWE	5.2 / - / 415v	87 mm x 1.6 m	£2,166.67	£2,600.00
Forsa 4.0 - P2	Professional	Inc Professional STC + TWE + TLE + Scorer	6.5 / 1.0 / 415v	107 mm x 1.6 m	£2,995.00	£3,594.00
Forsa 4.1 - P2	Professional	Inc Professional STC + TWE + TLE + Scorer	6.5 / 1.0 / 415v	107 mm x 2.1 m	£3500.00	£4,200.00
Forsa 8.0 - P3	Professional	Inc Professional STC + TWE + TLE + Scorer	6.5 / 1.0 / 415v	107 mm x 2.6 m	£4650.00	£5,580.00
Forsa 9.0 - P3	Professional	Inc Professional STC + TWE + TLE + Scorer	6.5 / 1.0 / 415v	107 mm x 3.2 m	£4,800.00	£5,760.00

STC = Sliding Table Carriage. TWE = Table Width Extension. TLE = Table Length Extension. P3 models inc extra support table & clamp.



£34

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3M has integrated its innovative Precision Shaped Grain – PSG – technology into a brand-new sanding disc, which can last up to six times longer than conventional A/O 80 grit. In six-minute removal tests carried out by 3M, the new Cubitron II sanding disc has also been shown to remove twice as much material as conventional A/O 80 grit. These new sanding discs are an addition to the Hookit range of abrasive discs and the grades range from 80+ to 120+ and can be used on a variety of surfaces, including wood, paint, metal and composites.

Contact: 3M

Tel: 08706 080 090 Web: www.3m.co.uk/abrasives

KIT & TOOLS

Take a look at the tools, gadgets and gizmos that we think you will enjoy using in your workshop

Veritas custom bench range

Briefly, there are two blade options – O1 and PM-V11 – six variations on a rear tote, three for the front knob and three for the frog. There are 108 different options that could be applied to just one plane. Multiply that by the five planes in the range – No.4, 4½, 5, 5½ and 7 – and it becomes clear that there are 540 different permutations.

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Contact: Axminster Tools & Machinery

Tel: 03332 406 406

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Contact: STANLEY Tools

Tel: 01753 511 234

Web: www.stanleytools.co.uk

Clarke CBS16 drill bit sharpener

This drill bit sharpener, available from Machine Mart, gives blunt drill bits a razor-sharp cutting edge. Quick and easy to use, the built-in drill bit guide ensures sharpening at the correct angle. Suitable for 3-10mm HSS drill bits, one at a time, with a voltage of 230V and a wattage of 70W. The speed is 1,600rpm and includes a replacement grinding stone.

Contact: Machine Mart

Tel: 01158 406 235

Web: www.machinemart.co.uk



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MASCOT LIGHT range

MASCOT LIGHT is the name of the new light workwear range from MASCOT. The range has been specially designed for work in Europe's large industrial companies. It contains nine new two-tone products, including work trousers, work jackets and a softshell jacket in two different colour combinations: royal blue/ navy or dark anthracite/ black. The range is offered in a broad range of sizes.



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Health & safety warning

Whatever method of sanding you use, there is always dust generated. All dust and particulates are potentially hazardous to health. Take all sensible precautions to minimise your exposure. Protect your eyes, lungs and face and use at source dust extraction and, if required, ambient extraction. Keeping a door or window open is not good enough to deal with dust. It might be a good addition to use, but not in isolation of other methods.

Tips for

Sanding turned work

Mark Baker offers some pointers to help you sand your work more efficiently and easily

After shaping your work, you will need to sand it to a fine finish on which you then apply the finish of your choice. Sanding turned work does not have to be difficult, but the shapes involved can prove tricky to sand effectively and evenly. This article gives some pointers to help you sand your work more efficiently and easily. There are numerous grit grades and types of abrasive to choose from, but I would recommend aluminium oxide –

available in various backing types – to start with. I would also recommend flexible backing, such as cloth or resin-reinforced backed abrasive.

Most projects will require you to use a variety of abrasive grit grades to get a reasonable surface on which you then apply a finish. Typically, grit grades of 120, 180, 240, 320 and 400 will be sufficient. Of course, use coarser or finer grades if you need, but whatever grit grade you start with, it should

be coarse enough to remove any damage or surface deviation. Then, use successively finer grit grades to remove the scratches left by the previous one, until you can't see them any more. Always work through the grit grades and never skip any. Abrasives can be used either for hand or power sanding – it is up to you which method you choose. Some jobs suit one or other kind better than others.

HAND SANDING

Hand sanding is an effective option for most projects. Hold the abrasive in such a way as to support the abrasive without letting your fingers come into contact with any revolving part. Always remember to keep the abrasive moving. Failure to do so will result in annular deep sanding rings, which are difficult to remove. When sanding, be very wary of chucks, natural-edges, bark, cracks, fissures, voids, upstanding details and sharp edges.

Hand sanding natural-edge work

For sanding this type of work, you could use a waste wooden block or



Hand sanding the outside edge of a turned bowl



A block with abrasive wrapped around it is great for sanding natural-edges



Using the two-handed sanding technique to sand a spindle



Folded abrasive allows you to access details easily

board. You could shape a block and apply hook facing on it to accept loop-backed abrasive. But whatever method used, by affixing or wrapping abrasive around a block and presenting this against the work, you keep your fingers away from danger and because the block spans any voids, you get a more even surface finish with no hollows in it.

Hand sanding spindle work

When sanding spindles, where you have a long gentle curved section, you might be able to use a two-handed sanding technique where you cradle the abrasive around the work. Remember to keep all loose clothing, hair, etc. away from the lathe. This



Using a length of dowel with abrasive wrapped around it to hand sand inside a hollow form

method allows you to keep as much abrasive in contact with the work as possible and gently glide the abrasive along the work.

Hand sanding detailed sections

Sand against detail – you should not power sand right up against detail, such as beads and coves as you will blend over/soften the detail. These areas should only be sanded by hand. Fold abrasive to create an edge if you need to. Flexible-backing on abrasives allows this to be done easily.

Deep sanding

I do find a pair of forceps very useful when working on vases and hollow forms. I use these for holding abrasives and also cloth when sanding or finishing in hard-to-reach places. One word of warning: never hold forceps by the handle holes; only hold the shaft. If you ever get a catch with them, you do not want your fingers

trapped in the holes. A quick and cheap alternative to forceps for simple shapes is to take a length of dowel, cut a thin slot in the end, insert abrasive in the slot and wrap abrasive round the dowel. Make sure you wrap it the right way so the abrasive doesn't unwind during sanding.

POWER SANDING

If power sanding, you will need to use loop-backed abrasive, which can be attached to sanding arbors that are held in a drill. The available arbors have a hook facing to hold the loop-back abrasives. I use both hand and power sanding methods.

If power sanding, a 50 or 75mm sanding arbor is all that is needed for most projects, but the larger the work, the larger arbor you should use so you have as large a surface contact as you can. Some curves may require you to use a softer-faced arbor or a secondary soft 'interface' pad so you get better pad-to-surface conformity. If you view the inside of a clock face, sand between the 4 and 8 o'clock positions for maximum control. ■



Power sanding a bowl interior
Inset: There is a wide range of sanding arbors available



Mark Baker

Mark Baker is Group Editor for all four of our woodworking magazines and directly edits both *Woodturning* and *Woodcarving* magazines. Mark loves working with shapes, exploring form and seeing what can be done with them. The classical and ancient forms feature heavily in Mark's work but he always tries to develop and tweak things further.





Carve your own Wooden spoon

Amy Grigg shows her techniques for crafting a wooden spoon

Making spoons has turned out to be far more satisfying for me than I would have guessed. At first blush, making a spoon seemed too simplistic to even bother with. But truth be told, there are so many good reasons to give it a try, as I hope to show you here in this article. I have finally found a good use for those scraps. Such a simple, straightforward project is perfect for those days when I want to play in the workshop but don't have much time or desire to measure twice and cut once. They also make great gifts, especially on the occasions when I don't know what to bring. Housewarming party or dinner party to go to? I grab one of my handmade

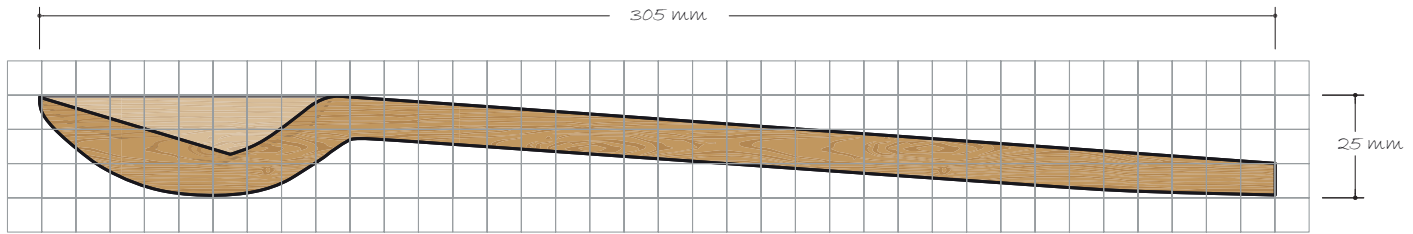
spoons, wrap it up and tie some twine around it, and voila! A gift that will be used and appreciated. Plus, to be honest, making spoons is fun if not downright addictive.

There are, of course, as many ways to make a spoon as there are spoon makers, and if you endeavour to make a few, you too will develop your own way. Having a fully equipped workshop at my disposal, I use quite a few machines and kick up a good bit of dust. But essentially, very few tools are needed. I am going to go through the steps I take in my process but I will also mention some alternatives for the woodworking beginner or hand tool purist, who may wish to take a simpler, less noisy route.

Getting started

Rifle through your kitchen and see if you can find a spoon you would like to emulate. Or do some spoon sketches and get creative, or live on the wild side and just draw a spoon directly on the block of wood.

Keep in mind what you wish to use your spoon for. For sauce, a spoon can be long-handled and have a shallow bowl, but a serving spoon will need a deeper bowl and sturdier handle. Choose a medium density wood for this first project. You can struggle with exotics later after you have learned from your mistakes. Cherry (*Prunus serotina*), sycamore (*Acer pseudoplatanus*) or yew (*Taxus baccata*) are all good choices. They



The side profile of a curved-neck spoon



1. If you have a favourite spoon in the house, use it as a guide



2. Use your own creative proportions and draw the spoon freehand



3. If you want a spoon with a curved neck, then cut away about one-third of the thickness of the wooden block



4. Draw out the spoon as viewed from the top



5. Carve out the bulk of the spoon bowl

Carving & finishing

The carving and finishing of the spoon bowl is one of the many areas where techniques can vary. Some people will continue on the path I am going and bring the bowl of their spoon to a smooth finish by more shaping and a great deal of sanding; others will prefer to show the facets left by their carving tool. If you don't have the use of power sanders, consider leaving the facets. When sharp, well-honed carving tools leave a smooth clean cut and the overall effect is quite lovely.

are strong enough to hold up to continuous use, but won't fight you while you are carving and sanding.

The size is up to you. For this project I am making a serving spoon using a 25mm block of cherry, which measures around 63mm wide × 305mm long.

Start by drawing the side profile of the spoon on the narrow edge of your chosen piece of wood.

I prefer spoons that have a curve in the neck – to me, they feel more ergonomic than a straight stick spoon and look more graceful. To create half of that curve, cut the spoon blank in the area of the bowl, as shown in the drawing. Make this cut on the bandsaw

with the board on its edge. Leave the other shaping cuts for later. It is easier to carve out the bowl of the spoon while the wood is still whole; this way, you can clamp the workpiece and take wide gouge cuts with a heavy mallet strike without risking a break in the spoon.

Without a bandsaw, the overall shaping cuts for your spoon can be made with your favourite handsaw, coping saw or fret saw. A jigsaw or scrollsaw will also work well.

Trace the top view profile of the spoon on the face of the wood block, then draw the precise area to be carved. About 4mm inside the spoon

Spoon making tools

After doing my research, I landed on a favourite maker – Ben and Lois Orford at The Craft Lab. The couple work out of their studio in Herefordshire. You can find a great deal of information on their website: www.benandloisorford.com.



The best basic spoon making tools

outline will give you plenty of wiggle room if you overgrind it a bit later.

Using a curved carving gouge and a mallet, remove the bulk of the spoon bowl. Err on the side of a slightly chunky spoon – you can always refine it later. It is quite frustrating to get through all of the work on a spoon and realise that the walls of the spoon bowl are fragile. Removing the bulk of wood for the spoon bowl takes less than 10 minutes with a sharp gouge. ➤

Refining the shape

After you are satisfied with the depth and shape of the spoon bowl, it is time to finish cutting the outer shape of the spoon on the bandsaw. Cut just outside your line – don't go too narrow at the neck as there is still a good deal of shaping to be done. If you take away too much material at the neck, then the spoon will feel weak.

The shaping process

The combo sander is next in the shaping process. I love the 305mm disc for removing most of the waste material; it is fast and aggressive. To shape the curve of the spoon at the neck, I use the belt sander. Both the disc and belt have rough 60 grit paper on them. I will remove these deep scratches later using the spindle sander.

This would be a good time for hand tool fans or people without a combo sander to get out their carving knives and rasps to shape their spoon. A draw knife also works well in taking the handle down to size.

Now that the overall shape of the spoon is established, I will go back to the bowl of the spoon with my gouge or a crook knife. The final balance and thickness of the bowl is determined now by taking fine careful cuts.

The next step is using a flex shaft rotary tool, which is operated by a foot pedal and has a 1/3hp motor. A rough grinding burr evens out any facet marks. On the same tool, I switch over to the Guinevere sanding system. The Guinevere system consists of an air-filled rubber balloon on which an abrasive sleeve is mounted. This can be a pricey gizmo but it earns its place if time is a factor. The assortment pack of Guinevere sanding sleeves comes with four grits. Start with the coarsest and move through in succession to the



6. Finish cutting the side profile



7. Cut the outer shape



8. Grind to your line



9. Shape the outer part of the bowl on the disc sander

finest. If you do not have one of these systems, then it is time to meditate and by meditate, I mean of course that it is time to hand sand from 120 through to 320 grit. Maybe put a film on while you are at it – it is going to take a while. This is also the time when you can feel grateful that you didn't select a hardwood for your spoon!

Sanding and adding details

After the spoon bowl is smoothed out, it is time to remove the scratches

left by the rough 60 grit paper. With a medium grit – 150 or 180 – on the spindle sander I will smooth out the overall spoon. A touch of light shaping can also happen on the spindle sander if needed. Too much pressure and the wood will burn, so use a light touch. After the deep scratches are smoothed out, I will pick up a sharp knife and do any detailing or carving that I wish to add. Again, leave facets from your knife cuts on some or all of the spoon if you like, or chip carve designs into



10. Use the belt sander with a coarse grit to shape the spoon's curves



11. Refine the inside of the bowl with a gouge or crook knife

the handle. I am a simple kind of gal so I go light on the embellishments.

While I am easy on the ornamental aspect of making a spoon, I am big on the spoon being very smooth to the touch. The added steps and time involved are worthwhile to me. The quality of the spoon is greatly affected in these final steps.

I love it when people pick up one of my spoons because they like the way it looks. I love it much more if they feel compelled to rub the spoon on their face and then look up at me embarrassed because they just did that. I know I have hit my goal as far the tactile experience goes if my customer loses themselves for a moment.

I hand sand the spoon to 220 grit and then begin the repeated process of raising the grain and hand sanding through finer grits of abrasive.

Raise the grain by running the spoon under water. The water has the effect of swelling the surface fibres and once the wood has dried, you will feel that it is once again coarse. Sand the entire spoon to 320 grit and run it under water again. Let it dry again and sand to 400 grit, then use '0000' steel wool for the final once over. At this point, when the customer uses the spoon, the grain of most woods will not raise again. I know of spoon makers who continue through to much finer grits and the results certainly show. For me, 400 is my magic number, but yours may be different.

Finish the spoon with the oil of your choosing and work the oil in to the wood with your hands or a clean rag. Be liberal with the oil and let it sit overnight before wiping off any excess. You can now go use your new handmade wooden spoon. ■

Finishing oils

In this article Amy refers to Mahoney's walnut oil, a specialist food-safe wood finish currently only available in the USA. Here in the UK there are a number of alternatives, all of which must be a food-safe variant with no additives or impurities.

Brandon bespoke mineral oil, Rustins Danish oil and Chestnut food-safe oil are some examples of alternatives. For food use, walnut oil may cause problems for those with nut allergies. Label your work showing how it has been finished.



12. A Kutzall grinding burr will easily remove the marks left by the gouge



13. The spindle sander gives the spoon its start towards fine sanding and refined shaping



14. A sharp knife is great for shaping and making detailed designs



15. When it comes to hand sanding, patience will pay off in the end



16. Raise the grain between sanding grits by running the spoon under water



17. Use your favourite natural finish to preserve your spoon

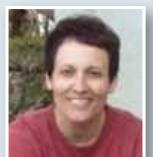


18. Working the oil in with your hands wastes much less oil than using a rag

Amy Grigg

Amy Grigg is an artist and woodworker whose work sells internationally. Her interests in a variety of media have led her from a career in illustration, to bookbinding and finally woodworking. She specialises in box making and woodturning. You can find out more about her by visiting her website – see below.

Web: www.amygrigg.com





Men's Sheds Association UK

The **Men's Sheds Association** was once a small project in Australia, but it soon grew in popularity around the world and now the UK has its own Association...

It's clear to see that the Men's Sheds Association is doing nothing but growing in popularity throughout the UK, with interested woodworkers never too far from a Shed.

The Associations around the world grew from the very first Shed in Australia in 1997, where members shared the tools and resources they needed to work on projects of their own choosing, at their own pace and in a safe, friendly and inclusive venue. Since coming over to the UK, an Association to support the movement has been formed here. Its first meeting was attended by 25 people, back in March, 2013.

The name may seem self-explanatory, but there is more to the Men's Sheds movement than one might think. Not your typical garden shed, the Men's Shed is much more about giving older men a sense of community, a place to meet with other woodworkers and create, to feel at home and pursue practical interests with a high degree of autonomy.

The Men's Sheds Association aims to help develop the movement by promoting people coming together, to share experiences, ideas and enthusiasm and to help fight any loneliness the older generation of men may feel. These are places of

skill-sharing and informal learning, of individual pursuits and community projects, of purpose, achievement and social interaction. It is clear why this movement is so popular!

With 1,000 Sheds in Australia, 200 in Ireland and others in New Zealand and Canada and with interest being expressed from South Korea and many other countries, there are now over 190 Sheds open in the UK, growing at more than two a week. The fast-growing interest throughout the UK means that the Association can hopefully look forward to a time when every community can offer its residents, and particularly its older



male residents, easy access to a Shed – but don't worry, a third of UK Sheds welcome women.

The Men's Sheds movement

This movement began in Australia, when men realised they could come together around practical tasks on a regular basis, particularly if they had a designated place or workshop where tools and work-in-progress could be stored. It was to provide support to men who have experienced mental health issues, problems with the transition to retirement or a lack of social interaction.

The activity appeals to men both living alone or with partners and at all ages, although the vast majority of 'Shedders' are at or beyond retirement age. Men with their own shed have often developed their skills and interests there but in a larger facility, with better or more equipment and with skills you can develop alongside others and jobs you can do for the community, a Men's Shed offers something new.

The Shed concept was first realised in England by Age Concern Cheshire, at Hartford in 2009 – about the same time as the first Shed in Ireland.

The projects undertaken range from full-time projects with paid staff and occupying industrial premises, to groups meeting in village halls and community centres for only a few hours a week. Some Sheds are in deeply rural locations, most are in small towns, but considering their populations, there are relatively few in large cities. There are Sheds that have been started by their users, by churches, by village development trusts, by large charities and by health authorities.

Sheds in Northern Ireland have been greatly helped by the Irish Men's Sheds Association. The Sheds have the potential to be of great benefit to their participants, so the Associations will help to raise the profile greatly.

Health and wellbeing

Men's Sheds has one key aspiration and that is to provide a healthier life for all of its members, replacing some of the good aspects of being in work. Many older men lose some sense of purpose with the loss of their work role, status, workmates, income, etc. and can find themselves disengaged from their community if the pub or sports is not their thing.

A number of experts have said that the relaxing environment Sheds create can extend a life due to the lower stress levels and other health benefits, also including lower blood pressure.

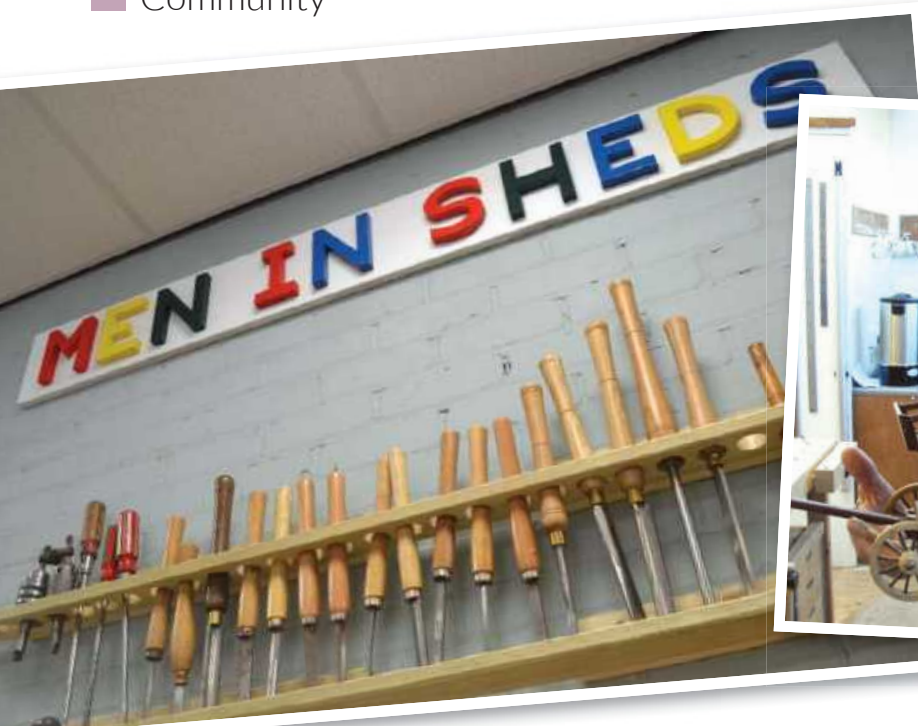
Some may question why Men's Sheds focus on males; the need to focus specifically on men's health as opposed to older people's health, is that women typically have access to various existing cross-generational communities, such as the CWA – Country Women's Association – in Australia or the W.I. – Women's Institute – in the UK. Therefore, the men's market was left open and the movement has started something that has been needed for quite some time.

Forming a shed

The way to start a Shed – as recommended by the Australian



Clockwise from top left: Macmerry Shed, Camden Shed, Strathkelvin Men's Shed, Bob from Camden Shed – he's 90 in 2015!



Men's Sheds Association – is to call a public meeting and decide as a group whether to go ahead. A committee is formed, who meet, perhaps monthly, followed by a general meeting where the committee's ideas are aired and offers of help sought from the wider group. Often the people calling the initial meeting will be an organisation willing to play a part in developing any subsequent Shed. While there are examples of groups of friends meeting informally in a private space, once the activity becomes a public one then issues such as responsibility, finance, renting, identity, etc. need to be faced. While the strongest, most sustainable Shed is one that has found the necessary resources from within the group and its contacts, most Sheds will need grants, at least to get started.

it mostly calls for care and common sense with the area most likely to be neglected being the record-keeping. This is needed as evidence that you were careful. A policy is evidence that you have thought about the issues. Plans will need to be made, for example, for safety training for all members, maintenance of machinery and tools, electrical circuit adaptations, hazardous substances control, e.g dust, finishes and keeping the place tidy and uncluttered, etc.

Keeping in touch with networks, local organisations and businesses with similar interests can produce helpful information, people and outcomes. For information, get on the mailing list of your local Council for Voluntary Service or other body supporting the voluntary sector; materials have come via organisations involved in recycling, an Emmaus group; joint projects via a boat museum, wildlife trusts, an archery club, an author on educational tools for autistic children; people via Stroke Association, Alzheimer's group and Healthy Living Centres.

Maintaining the Sheds

The Association believes that there will be a time when every community can offer a Shed in the near future, for several reasons. These include: the fact that Sheds attract a sector of the population that other facilities find difficult to engage; they engage people in activities that retain and develop their skills and keeps them active and connected with others, all of which are likely to lead to savings on health costs and in some cases save lives. Sheds can often play a valued and visible role in



Clockwise from above: Frome Shed, Camden Shed, Nottingham Shed, Crewe Men's Shed, Bowral Shed in Australia, Worthing Men's Shed, Market Drayton Men's Shed

The equipment you'll need will obviously depend on what the men want to do. The Hollywood Shed started with modern technology because that was one common thread in a survey of needs – that the men often found mobiles and computers confusing. The range of work in South Armagh Sheds has involved fixing vehicles, craftwork and drumming. A Shed in Ireland maintains the exhibits in the local museum and another is repairing bikes. However, most Sheds have woodworking as their common thread. Maintaining health and safety in a Shed is a constant activity. Fortunately,



their communities through providing practical services. The Association believes public, trust and private funding will continue in particular for start-ups, but along with most local voluntary organisations, Sheds will be expected to earn increasing proportions of their costs, while not competing with commerce, to collect membership fees and daily dues and to undertake local fundraising, such as raffles, etc.

Tools for Self Reliance, a charity which supports 58 tool renovation groups around the country, will be encouraging their groups to move towards the Shed model. Further growth in Northern Ireland will be supported by Groundwork – N.I. Local charities will add a Shed to their services and individuals will start their own with advice from this website, other existing Sheds and the UK Men's Sheds Association.

Activities

Although each Men's Shed has its own unique aims, a Shed's activities usually involve making or mending in wood – e.g. carpentry, joinery, turning, carving, whittling, marquetry, furniture renovation – and may include activities as varied as bike repair, gardening, vehicle repair, tool renovation, upholstery, boat renovation, model engineering, milling, turning in plastics, etc. The activities focus on reclamation, reuse and restoration.

The Sheds, however, can be defined into five main categories, which are: work, clinical, educational, recreational and communal. Whichever activities

are pursued, the essence of a Shed is not a building, which some don't have, but the network of relationships between the members.

Work Sheds are for those who want to remain active and have an overall goal. These Sheds focus heavily on restoration and construction, while helping the local community; Clinical and Communal have similar features, with the core of their aims focused on helping the local male community interact and discuss their health and wellbeing; Recreational Men's Sheds are created to help promote more social activity in the local area; Educational Sheds are aimed at improving skills and qualities; Popular Educational Sheds are based around a certain skill, such as cooking; Virtual Sheds provide an online capability where members from all Men's Sheds and other remote communities across the country or around the world can actively communicate and be involved in numerous research, writing and photographic activities; and finally, the International Historians Association has created a community shed for Veteran Responders, which include police officers, firefighters, paramedics, rescue workers and the Military who have injuries, incapacities or disfigurements that make them immobile or unwilling to join local work sheds. ■

In 2014, the UKMSA...

- Reached out to new people through three television programmes, three radio shows, the *Guardian* and local papers, magazines, Facebook and via the official website.
- Arranged three large public meetings.
- Met with a great number of people at the Harrogate Woodworking and Power Tool Show and attended local events such as the Age and Wellbeing Fair, Cambridge.
- Replied to the 580 people registering on the website, seeking to start or join a Men's Shed.
- Met with Public Health England's National Lead for Older People, insurance underwriters in London, and a parliamentary lobbying company in Millbank.
- Spoke at a training event for the Campaign to End Loneliness.
- Participated in research – Mental Health Foundation and Men's Health Forum.
- Internationally, provided support to the Irish, Welsh and Scottish Associations; met with the key people in Australia and contributed sections to a book describing the international Shed movement.
- Held their first AGM in June.
- Appointed a management committee and approved a development plan.
- Raised £15,000 for staff and promotional events.
- During this period, the number of Sheds open has grown from 50 to 124 with others planned.

Aims

- Develop previous work in publicity, linking up, supporting existing Sheds, getting sponsorship, representing the movement and community building.
- Hire four or more part-time regional Shed Development workers in conjunction with fundraisers of the Royal Voluntary Service.
- Seek collaborations with other agencies e.g. the Third Age Trust – University of the Third Age.
- Register as a Charitable Incorporated Organisation.

Contact details

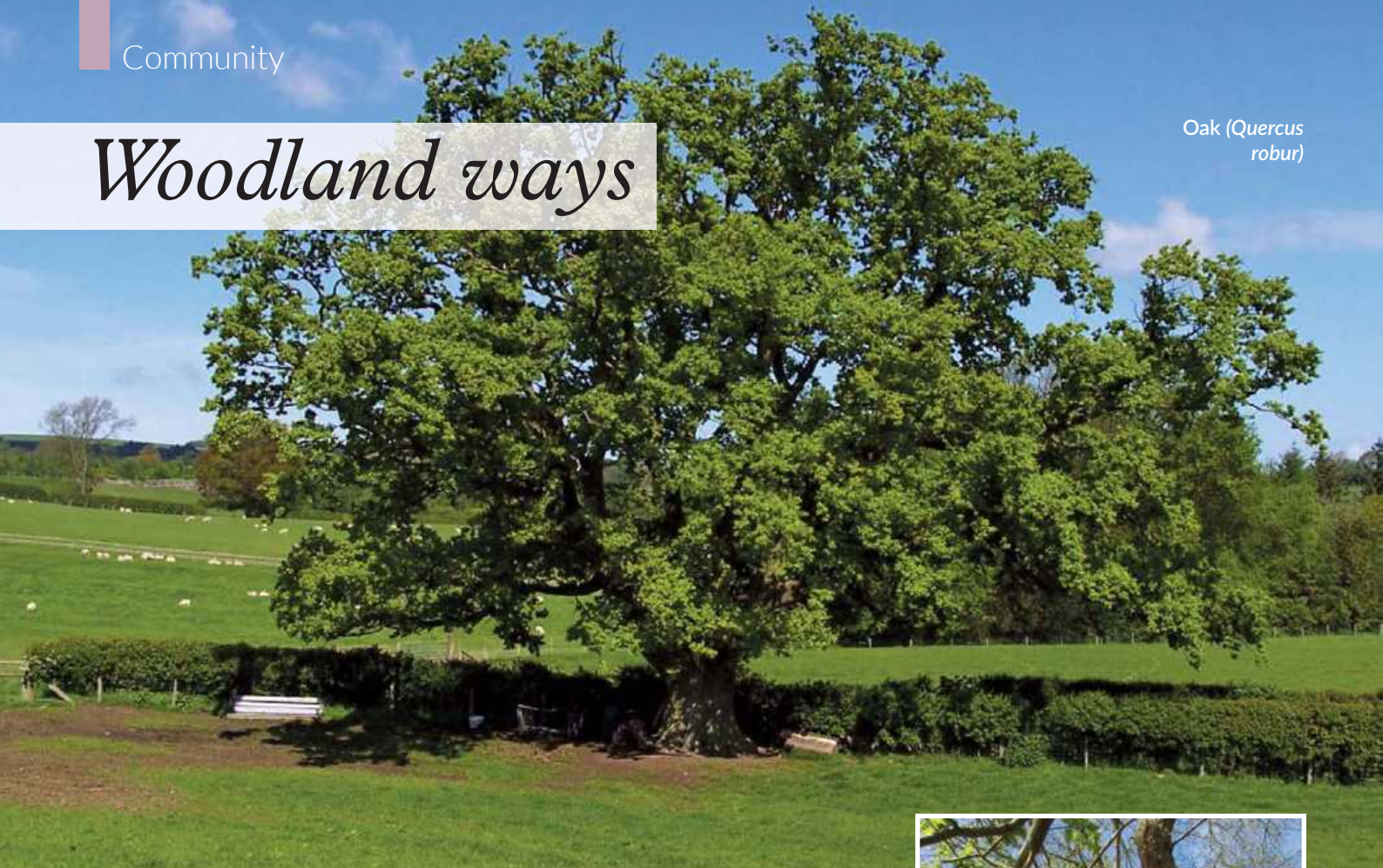
Men's Sheds Association

Email: contact@menssheds.org.uk

Web: www.menssheds.org.uk

Woodland ways

Oak (*Quercus robur*)



Native trees of the British Isles

When talking about trees, perhaps ‘native’ should mean any species that colonise a specific area naturally. Such terminology is never that easy though, as **Gary Marshall** explains

Some sources define ‘native trees’ as those that have resided here since the last Ice Age glaciations retreated. Thus the first ‘native tree’ on the edge of the retreating tundra may have been the downy willow (*Salix lapponum*) – a shrub that can still be found in the Scottish mountains.

Tree fossils from species similar to Chile pines (*Araucaria araucana*) have been found in Purbeck rocks. Time has long since swept away the likes of these trees from our shores, although even garden centres now

stock cultivated versions!

Over that time, seas, lakes, rivers, mountains and land masses have changed enormously. There have been Ice Ages and warmer spells.

Defining ‘native’

There are constant efforts to standardise the term ‘native’ and make it more conclusive. Many argue that it should refer only to those plants that were here when the land bridge, via ‘Doggerland’ to mainland Europe, was breached by the North Sea some



PHOTOGRAPH BY GARY MARSHALL

Sweet chestnut (*Castanea sativa*) – not a native

6,500 years ago. Different definitions apply to Scotland, Ireland and outlying isles. There are lists that include ‘archaeotypes’, which are trees that were present from specific human times. Such lists may then include the English elm (*Ulmus procera*) – a tree that is thought to emanate from clones introduced in Roman times; or the sweet chestnut (*Castanea sativa*) whose presence is evidenced in medieval records. Trees introduced by man in any era can naturalise and spread, but these are not generally



Hornbeam (*Carpinus betulus*)



Blackthorn (*Prunus spinosa*)



Alder buckthorn (*Rhamnus frangula*)



Above: Silver birch (*Betula pendula*)

Right: Sycamore (*Acer pseudoplatanus*) – not a native?



classed as native. But what if new species of airborne tree seeds were to reach us naturally now and spread, should these be logically called non-native?

Evidence

Tiny pollen grains are unique to each tree species and survive in bogs, other soil and sedimentation. Pollen, submerged forests, fossilised trees, twigs and leaves have all helped to build a picture of the trees that were here in the fourth millennium BC.

The Online Atlas of British and Irish Native Flora, compiled by the Biological Records Centre, lists some 80 'native' species of tree and shrub. Other listings contain as few as 30 species. I don't dispute any specific records but since regionally 'native species' can change in little over one human life span, I suspect there is much still to learn. This is a hotly disputed and much studied subject.

Myth busting?

Any tree I mention or list as 'native'

here is likely to be based on my knowledge, belief, research, findings and – I admit – possible established misinformation, hearsay and rural myth. You may have heard the term 'honorary native' applied to the sweet chestnut – a native of southern Europe – perhaps because it's so useful, often old and handsome. Could some storm-blown sycamore (*Acer pseudoplatanus*) seeds have reached us naturally over the last few millennia? You won't find many lists of natives that include this ubiquitous tree. ➤



Above: Rowan (*Sorbus aucuparia*) in the wild

Right: Black poplar (*Populus nigra*)

List busting

So, here's my list, with omissions but with brief observations. It excludes small natives and climbing or short-lived woody shrubs, e.g. heather, myrtle, broom, gorse, rose and bramble. Also regional sub-species are not listed. Nevertheless I hope you find it an interesting reference. What may surprise you are the many common trees that just aren't natives, like sweet chestnut, horse chestnut (*Aesculus hippocastanum*), common lime (*Tilia vulgaris*), sycamore – I daren't list it! – and all conifers other than the first three trees on my list. Several trees I've included only occur in native stands regionally in the UK or on particular sub-soils: i.e. Scots pine (*Pinus sylvestris*) is native only to the remnants of the Caledonian Forests in Scotland; whitebeams (*Sorbus aria*) you'll mainly find on chalk or limestone and the strawberry tree (*Arbutus unedo*) just in a small area of County Kerry in Ireland.

Which natives listed here are on your doorstep? Happy hunting! ■

Gary Marshall

Gary has had a life-long interest in woodlands and the countryside. He trained in countryside management and subsequently ran a company working with the local County Councils and Unitary Authority and their Countryside and Rights of Way Teams, as well as a wide range of conservation organisations.



SCIENTIFIC NAME	COMMON NAME	NOTES
<i>Juniperus communis</i>	Common juniper	Small, pointy or spread, berries for gin
<i>Pinus sylvestris</i>	Scots pine	Scots native, naturalised/planted elsewhere
<i>Taxus baccata</i>	Yew	Old trees in churchyards, longbows
<i>Arbutus unedo</i>	Strawberry tree	Co. Kerry Ireland only
<i>Acer campestre</i>	Field maple	Ancient woods and hedges, autumn golds
<i>Alnus glutinosa</i>	Common alder	Streamside, pilings, clogs and cotton reels
<i>Betula pendula</i>	Silver birch	Acid and sandy soil pioneer, shiny twigs
<i>Betula pubescens</i>	Downy birch	Acid sand and rock pioneer, hairy stems
<i>Buxus sempervirens</i>	Box	Chalky downland – Box Hill
<i>Carpinus betulus</i>	Hornbeam	Hot logs, mill cogs – but furniture beetle
<i>Cornus sanguinea</i>	Common dogwood	Hard stems, white flowers and black berries
<i>Corylus avellana</i>	Hazel	Underwoodsman's favourite, wattle fences
<i>Crataegus laevigata</i>	Midland thorn	Two seeds in the haw, shiny leaf
<i>Crataegus monogyna</i>	Hawthorn	One seed in the haw, matt leaf
<i>Euonymus europaeus</i>	Spindle	Garish berries – pink with orange seeds
<i>Fagus sylvatica</i>	Beech	Chilterns, North Downs, big trees, bodgers
<i>Fraxinus excelsior</i>	Ash	Strong poles, good logs, dying back?
<i>Ilex aquifolium</i>	Holly	Ivory wood, leaves thornier near ground
<i>Ligustrum vulgare</i>	Common privet	Food for the privet hawk-moth
<i>Malus sylvestris</i>	Crab apple	Ancient woods, sour fruit
<i>Populus nigra</i>	Black poplar	Common in Bucks by rivers. Sussex rarity
<i>Populus tremula</i>	Aspen	Hear the tree, leaves loudly rush in breeze
<i>Prunus avium</i>	Wild cherry	Occasionally large canopy tree, suckers
<i>Prunus padus</i>	Bird cherry	Mainly a northern native
<i>Prunus spinosa</i>	Blackthorn	Black thorny twigs, white bloom, sloes
<i>Quercus petraea</i>	Sessile oak	Prefers lighter soils, wildlife habitat, timber
<i>Quercus robur</i>	Pedunculate oak	Likes heavy soils, wildlife habitat, timber
<i>Rhamnus cathartica</i>	Purging buckthorn	On chalk and limestone – berries purge!
<i>Rhamnus frangula</i>	Alder buckthorn	Acidic rough land – charred for gunpowder
<i>Salix alba</i>	White willow	Graceful tall tree white leaf backs
<i>Salix aurita</i>	Eared willow	Small 'ears' before main leaf
<i>Salix caprea</i>	Sallow	(Goat willow) pussy willow, can grow over 15 metres
<i>Salix cinerea</i>	Grey willow	Like small goat willow narrower leaves
<i>Salix fragilis</i>	Crack willow	Branches and twigs snap – often pollarded
<i>Salix pentandra</i>	Bay willow	Mainly northern tree
<i>Salix purpurea</i>	Purple willow	Used by basket weavers
<i>Salix viminalis</i>	Common osier	Grown in withy beds and by ditches
<i>Sambucus nigra</i>	Elder	Elderflower champagne and cordial
<i>Sorbus aria</i>	Whitebeam	Mainly on chalk and lime many subspecies
<i>Sorbus aucuparia</i>	Rowan	Mountain ash hardy tree in wild places
<i>Sorbus torminalis</i>	Wild service tree	Locally common in ancient woodland
<i>Tilia cordata</i>	Small-leaved lime	See <i>Woodworking Crafts</i> issue 3
<i>Tilia platyphyllos</i>	Large-leaved lime	See <i>Woodworking Crafts</i> issue 3
<i>Ulmus glabra</i>	Wych elm	Spreading tree, less prone to disease
<i>Viburnum lantana</i>	Wayfaring tree	Smelly wood when cut – it's not the dog!
<i>Viburnum opulus</i>	Guelder rose	Rosettes of sterile flowers round lace cap

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Planer/thicknessers

PHOTOGRAPHS BY BOB ADSETT, UNLESS OTHERWISE STATED



Machinery expert **Bob Adsett** explains what makes a planer/thicknesser tick and how to get the best out of it

A planer/thicknesser is a combination of two machines, a surface planer or straightening machine and a thicknessing machine. In a large workshop or in a joinery shop, separate machines are often found as this allows two people to work at the same time.

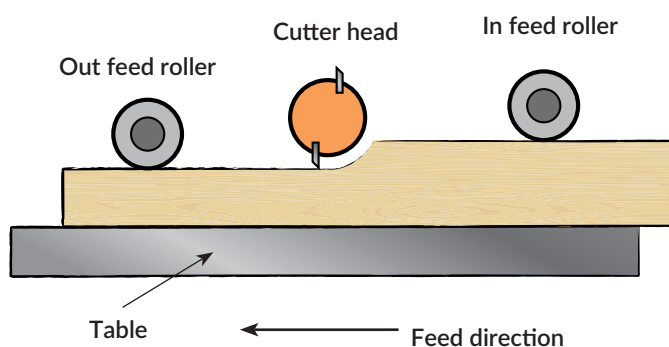
The surface planer enables the operator to flatten and face and edge timber while the thicknesser allows another operator to bring the work to the desired thickness.

Industrial workshops will sometimes have a four-sided planing machine that does this all in one go, but we are



SCM F520 Nova surface planer from Scott + Sargeant

PHOTOGRAPH COURTESY OF SCOTT + SARGEANT



looking at the smaller machines for the home workshop or small businesses. The advantage of the planer/thicknesser in a small workshop is that it takes up less space than two machines but can do the same job.

There are a number of different makes and designs, some with fixed tables some with hinged tables and some with tables that you take off altogether when thicknessing the timber. But most work on the same principle: over the top of the machine first one face is flattened and then one edge is planed square, then the timber is fed through the machine under the cutterblock with the clean sides down on the thicknessing table to cut the second face and edge parallel to the first ones.

Checking and setting up the machine

The tables should be set correctly on a new machine; however, if you buy a second-hand model, check how parallel the thicknessing table and the blades are. This can be done by placing two identical thickness blocks of aluminium or steel under the cutterblock at both ends and bringing the table up until it just touches the cutterblock, then check to see if one block moves and the other doesn't. A thou or two difference will not have any great effect but more will, and adjustments are needed. See the manufacturer's instructions for the correct positioning.

The top tables or surfacing tables should also be parallel to the cutterblock, not the blades. Adjust the infeed table so that it is level with the outfeed table and then place a long engineering straightedge on the tables. They should be as true as possible with no gaps at either end or in the middle; this should be checked at the front and back of the machine. If there are gaps, then one or both of the tables must be reset or surface planing accurately becomes virtually impossible.

The maximum gap tested with a feeler gauge on most small machines should be no more than 10th of a mm – .004in. Any more will need adjusting.

Different makes have their own methods of adjustment and these should be followed. The instruction manuals will give the information needed or it might be possible to download them from the internet. Again we go back to the manufacturer's instructions. The adjustments vary, sometimes the table has to be reset or sometimes shimmed, other times it might be that the cutterblock bearing casings can be raised on one side or the other but whichever it is, the block and table should be as true as possible.

Changing or resetting the blades

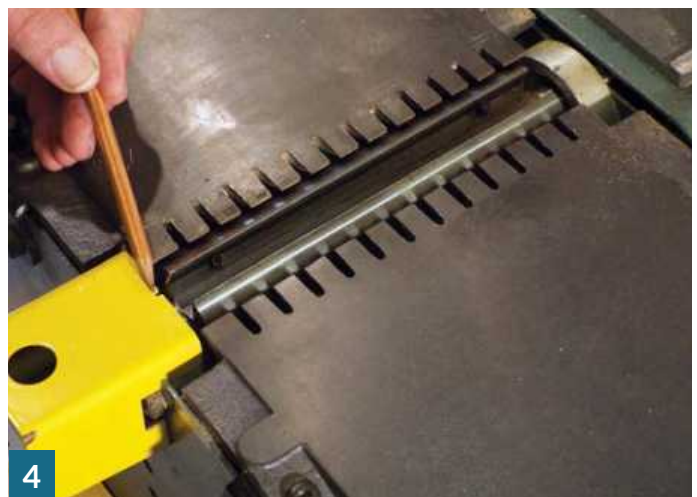
Most modern machines will have either a two-bladed or three-bladed block setting. There are solid resharpenable blades, disposable blades and a double-edged high grade disposable blade that needs a holder. This is the type that I am about to use in my machine. I got these from Biven Machinery in Lytham St Annes and the holders were purchased from NMA Agencies.

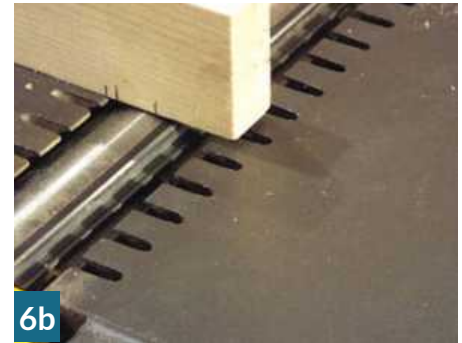
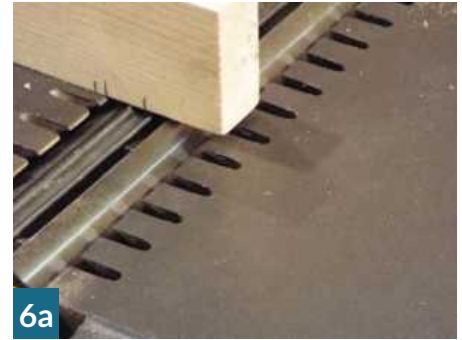
1 The first step is to unlock the blades and remove the old blades taking care not to lose any bolts, locaters or springs in the block. Be careful here as the very ends of the blades can be sharper than you think and could cause a potential injury.

2 Clean out the slots in the block as any dirt or muck in them will make it hard to set the blades in correctly.

3 Now set the blades back in the machine, setting each blade before moving on to the next. The blades should be set level to the outfeed table not the infeed table. The infeed table should be adjusted down and away from the block for ease of access to the locking bolts.

4 As the block is rotated the edge of the blade will come to TDC – top dead centre. At this position, the blades are set level to the outfeed table. On some machines this is marked on the bearing casing, if not then two wooden setting blocks can be made giving marks for the edge of the table and the TDC line and the blade set at that point. ➤





5 Pinch the offcentre bolts to secure the blade and then start tightening the bolts starting from the centre and working outwards alternately across the block so as not to distort the locking wedge. Check that all the bolts are tight but do not overtighten them and strip the threads, then move on to the next blade.

6 Now check the blades are set correctly to the outfeed table. If not, when you're planing there will be a snipe at one end or the other of the timber. Use a piece of flat planed wooden jig with two pencil marks on it set 3mm apart – some makes might need these slightly further apart – and roll the block back so that the blade edge is before TDC – Top Dead Centre. Set the jig with one mark in line with the edge of the table and the other back on the table, then with just very light pressure, roll the block forward allowing the jig to move forward with

the roll. The second mark should stop at the edge of the table. Too much travel means the blades are too high; no travel means the blades are too low, the blades should just move the jig to the second mark. If you're a long way out, then the resetting needs to be repeated. This will take a little practice to get it right first time.

How to use surface planing

The first operation is to get one face and one edge flat and square. To do this, make sure the fence is square to the table. I usually set it to the outfeed table as this is where the final control of the cut is.

7 Check the timber and always try to plane with the grain as you would with a hand plane, keeping any bowing of the wood up in the middle. Set the infeed table about 1mm lower than the outfeed table; this can be altered once you're happy with the cutting.

8 Keeping the guard over the wood, use hand pressure to feed the work piece from the infeed table onto the outfeed table. This is not a downward or forward pressure; it should be a combination of the two as keeping the cut surface of the wood in contact with the outfeed table ensures a flat, even cut. When the face is planed the edge has to be planed square. To do this, set the fence in a comfortable position; this can be moved across the table if a large amount is being planed so as not to wear the blades all in one place.

9 Set the guard to the thickness of the work from the fence and switch the machine on. Now place the work to the fence on the infeed table and feed the wood over the blades and onto the outfeed table, keeping the pressure to the fence to maintain a square edge.

10 Great care must be taken at this time not to let the fingers





or thumbs trail onto the blade. Never hold the work directly over the blades, always over the tables and away from the blades. As you move the wood along the tables, the holding pressure needs to be transferred onto the outfeed table. If the workpiece has a heavy bow in it, then a number of passes will be required to get the work flat and square.

Thickening

To use the thickener, there is an engagement lever that has to be engaged to activate the feed rollers.

11 Thickening is the process that gets the work down to the required size as the timber is placed onto the thickening table and pulled through the machine under the cutterblock. It is fed along by two sprung-loaded rotating feed rollers. To stop the wood kicking back, there is a row of anti-kickback teeth just in front of the first feed roller; these lift up in a rocking motion as the wood

is passed under them and if the work tries to kick back for any reason, the teeth lock into it to prevent it coming back out of the machine.

12 Again, try to plane with the grain to get a good finish. You will find that some timbers may need a very light final skim. First, stand the wood on edge as the face has not yet been removed and it will be more stable than when the face has been cleaned. You can then thickness the other face.

13 Multiple passes are normally needed to bring the work to the required size. If a number of pieces are being machined, then feed each piece through the machine at one setting before adjusting the machine and then put the whole batch through again until the size you need is produced.

14 All makes of thickener do not have the same thread pitch for the rise and fall on the thickening

table, but if you work out the pitch of the thread, the winding handle can be marked with divisional indicators so that it is possible to adjust the height by as little as 0.25mm per mark. My machine has a 2.5mm pitch and is marked out with 10 notches, which represents 0.25mm calibrations. If all goes to plan, there should now be a pile of wood all the same size and finished to the size you want. ■

Bob Adsett

Bob started his woodworking career in 1967 in furniture manufacturing before moving into the construction industry. He then worked as a demonstrator and trainer for Kity Machines, which included factory-based training in Soviet-era Latvia. He then joined Axminster where he marketed CMT cutters and helped launch Lamello products.



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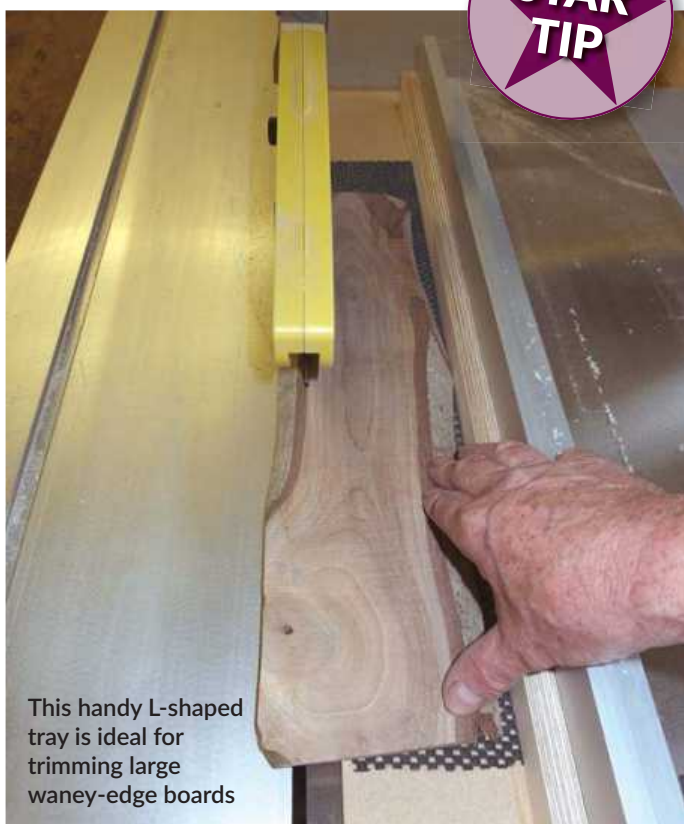
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Hints, Tips & Jigs

Your chance to pass on all your crafty hints, tips and jigs to the readers and maybe even win a prize!

STRAIGHTENING SMALL WANey-EDGE BOARDS



This handy L-shaped tray is ideal for trimming large waney-edge boards

Trimming large waney-edge boards is easy with a portable saw and clamped on straightedge. I had to chop down a walnut (*Juglans regia*) tree some years ago and after a lot of seasoning, I had to make it ready to use. After squaring the very irregular shaped trunk sections I was left with some thinnish rippings, which I didn't want to waste. The waney-edge presented a bit of a problem because the rippings were quite small. My answer was to make an L-shaped tray to sit each piece on in turn. I used a strip of non-slip rubber mat that you can buy in many DIY stores, stuck down with contact adhesive. Because wood is quite light and thin, just placing it on the mat, pressing down firmly and then using the fence on the tablesaw to press the tray against, is enough to get a clean straight cut. A hold down is a good idea once you reach the back end of the board so your fingers aren't near the blade.

Ivor Read

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MEASURING INTERNAL SPACES

A mate of mine is a 'sparky' by trade and he taught me a trick for making internal measurements using a length of conduit and sliding a section of the cover until it touches the internal surface you want to check. You need to make sure it is right if it is touching at both ends.

Phil McConnell



Use a length of conduit for making internal measurements

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EASY ABRASIVE DISPENSER

After years of messy storage of abrasives – sheets, pads and rolls – I decided to get them sorted out. The best solution I found for rolls, which I prefer in any case, is to have them on a large dowel right over the bench where I'm working. At one end it goes through a hole in a divider board between metal and woodworking benches and hangs from the ceiling in a cord loop at the other end. It's easy to slide the dowel to remove or add rolls as I need to.

Roger Gryllis

Right: Roger's handy abrasive dispenser can be positioned directly over the workbench



PHOTOGRAPH BY ROGER GRYLLIS



PHOTOGRAPH BY GMC/ANTHONY BAILEY

Use this method to draw a perfectly parallel pencil line on the job you're working on

COMBINATION MARKING SQUARE

My grandfather taught me this one: take your combination and carefully file a small 'V' notch at the end, which is big enough for a pencil point. You can then set the rule at the required distance and proceed to draw a perfectly parallel pencil line on the job as required. I prefer this to a marking gauge as it is easier to see and my eyesight isn't the best. Another tip, however, is to make sure that the face of the square is smooth so it will slide easily. A quick rub on a sheet of emery paper will sort that out.

Martin Feeney

'THE HARDBOARD CEILING'

My garage doubles up as a workshop and it was pretty basic, but I've created a more pleasant place to be over time. The one thing I left until last was what was over my head – loads of ladders and other junk perched a bit precariously over the beams that hold the roof together. It could be dangerous if anything fell down and grit and spiders used to drop on the floor. I've mainly solved the problem by clearing everything off the beams and nailing down 6mm hardboard all over them, except for access at one end so I can still get at stuff stored in the roof. With a coat of white emulsion, it now feels like a proper workshop!

Ben Westbrooke

Ed's note: For the technically minded, the beams Ben refers to are called purlins, which are any longitudinal member spanning a roof space – with a few exceptions – and they connect to the angled members that meet at the apex; these are termed rafters and support the roof covering.



PHOTOGRAPH BY BEN WESTBROOKE

Ben used 6mm hardboard to cover the beams in his garage



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MARKING OUT TOOLS

Expert hand woodworking tutor **Peter Sefton** moves on to the next stage in exploring the essentials of hand technique by discussing marking out methods

In issue 2, I wrote about measuring tools, which leads me now on to a discussion about marking tools and how most of them can be improved with a little extra work from you, or tested using some tips and methods to ensure they are performing.

Pencils

When I mark out, I either use an H2 pencil or a marking knife, and I only use a softer HB for indicating face side/face edge marks, etc. My favourite pencils are the Staedtler Traditional – the black-and-red ones – and I sharpen them to a two-sided chisel point with a chisel, then improve the edge with a 240 grit abrasive paper on the two opposing edges. As a general rule, I will use a pencil line if marking out sawing work and I will use a knife if marking out chisel work. The

reasoning behind this is that the saw will not follow a knife line any more than it will a pencil line, but a chisel will sit comfortably in a knife line.

Marking knives

When it comes to marking knives, you generally have three grinding shapes to choose from: the double-ground Swann Morton, the left- and right-handed Ashley Iles style or the spear point found on Veritas. My preference is the Swann Morton as the blade is so quick to either sharpen or replace and it's very thin and sharp. The single sided types may be required in both a left- and right-handed version for scribing around dovetails. The spear point can be used to mark either the left- or right-hand of a dovetail, but they can sometimes be a pain to sharpen! ➤



Top: I sharpen Staedtler Traditional pencils to a two-sided chisel point with a chisel



Bottom: A range of marking knives

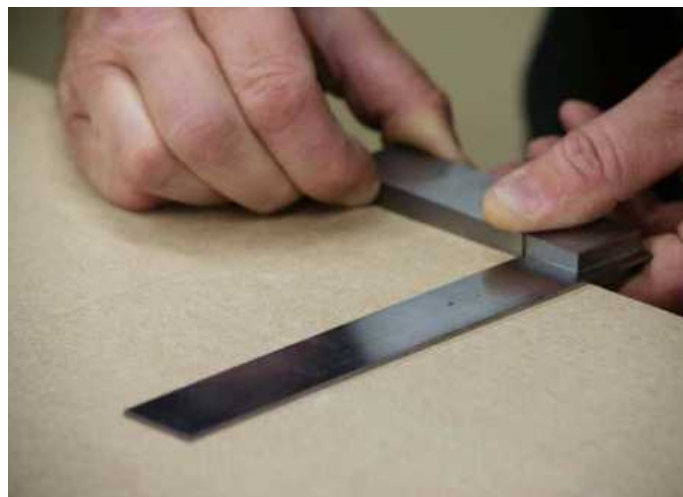
Peter Sefton

Peter Sefton is a well-known furniture maker who runs courses in fine woodworking, teaching and mentoring students at the Peter Sefton Furniture School. He also owns Wood Workers Workshop and he is a Liveryman of the Worshipful Company of Furniture Makers.
Web: www.peterseftonfurniture.com





One of my beautiful rosewood (*Dalbergia spp.*) and brass try squares – they look great but aren't very accurate

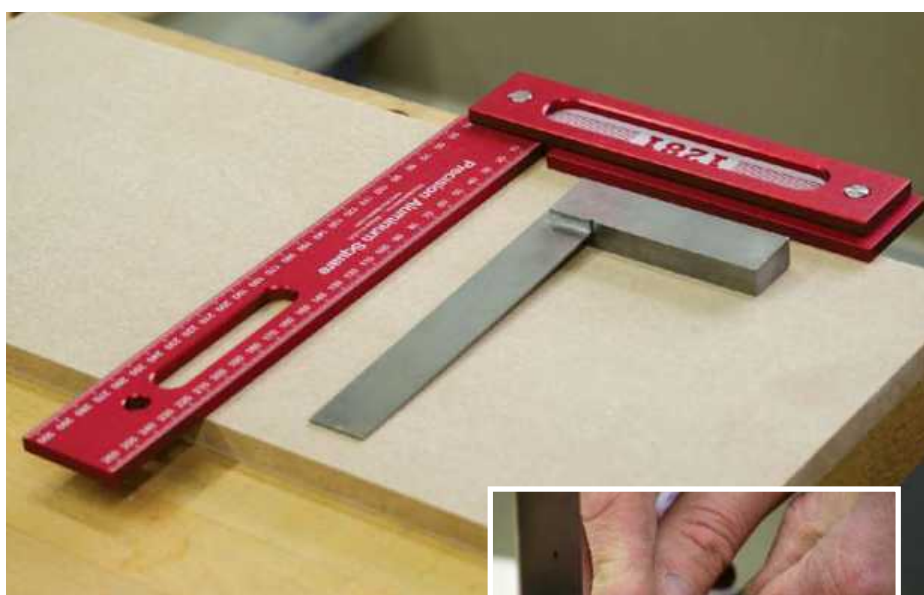


Checking for accuracy using a piece of MDF. Simply lay the square on it with the stock to the left-hand side and scribe a line

Squares

The humble square; within my collection of woodworking tools I have some beautiful rosewood (*Dalbergia spp.*) and brass try squares but these have sadly been put into my display cabinet, rather than my everyday working tool kit. This is because they have lost their accuracy – if they ever had it – and have long since been replaced with engineer's squares that have proved to be far more reliable over the years. Although the old rosewood squares are very attractive, if a square's not square or true with the blade being at 90° to the stock, then it is useless.

The woodworking way to check a square for accuracy can be done using a piece of MDF or solid timber with a perfectly straight edge. Lay the square on it with the stock to the left-hand side and scribe a line with a very sharp H2 pencil or a sharp marking knife. Flip the square over with the stock to the right-hand side and check it against the line. If the lines are parallel, then the square is true; if the lines are



Above: Very accurate squares
Right: Removing roughness



converging, you need a new square.

If you cannot mark or check your timber accurately you will fall at the first hurdle before even starting any real making. The quality of engineering squares varies; I recommend accuracy to at least BS939 Grade B or above to my students. I have seen various brands come through the School and have found Fisher to be the best quality at less than £20 but you can spend a couple of hundred pounds for a very expensive one. A slightly different style of square is the Inca or Woodpecker versions, which have a lip on the inside of the stock; this allows the square to sit on the edge of the timber without twisting and falling off.

All good quality squares have a machined slot in the internal corner between the stock and blade. This is to ensure that the square can sit comfortably on the material being

tested rather than it 'rocking' on any burr or dust that might otherwise distort your measurement. Squares should always be well looked after – they are fairly robust but can get knocked about and this can lead to small dinks on the stock that might need to be carefully removed with a diamond lap file, which will remove the high spot.

In my experience, 45° squares are also prone to inaccuracy if they are the rosewood type. Personally, I prefer the solid plate Japanese or American style over our old English variety as the rosewood type, although very attractive, rarely stays accurate over the years. 45° squares are tricky to check and I tend to use my Angle Cube for this.



Using my Angle Cube to check 45° squares, which makes it much easier

Sliding bevels

These are very traditional tools used for marking the slopes of dovetails and angles found around the workshop, but I always feel they are possibly more essential to site carpenters, particularly when roofing. If buying a sliding bevel, I suggest getting one with either a knurled thumb screw or end clamp rather than a wing nut fastener as these can interfere with the stock referencing on the timber. Removing the wing nut and turning the bolt around by $\frac{1}{8}$ th of a turn and replacing it in the stock can usually overcome this. Many workshops have now moved over to digital protractors for workshop use, although the use of my trusty Angle Cube can bring the old sliding bevel into the 21st century!

Right: Sliding bevels come in a variety of different types, as shown opposite



Marking gauges

I was trained using 'Marples' style pin gauges for either marking or mortise work for going with the grain, and cutting gauges when making any lines across the grain. For me these work very well but I make some small adaptations to them before using them to improve their performance.

Marking gauges can either be pulled towards the user or pushed away from the body. I find more control



For setting, a ruler is used to set the point of the pin at a desired distance from the gauge's stock or fence

when pushing away from my body.

The setting procedure involves using a ruler to set the point of the pin at a desired distance from the gauge's stock or fence. To make any fine adjustment tap the end of the gauge stem on the bench to increase or decrease the setting, depending on which end you tap. This is fine to be done on a marking gauge but should be avoided on a screw thread mortise gauge, as it will strip the moving pin's fine thread.

The pins on these gauges come as a compass point shape but can be improved by being filed into a more chisel-like edge. This should be filed at an approximate 5° angle to the gauge's stock and keeps the gauge pulling into the timber rather than going with the grain. The newly shaped pin acts like a rudder steering the gauge for improved control. This can only be done once you establish whether you are a pusher or puller of the gauge, as filing needs to be done to suit your individual working practice.



An 'improved' chisel-shaped tip for precise marking

When using the gauge, my tip is to have your thumb and index finger on the stock and your other three fingers on the stem. Use more sideways pressure than downward pressure, which will help you to resist the temptation of the pin to follow the grain – it is best to use several light and short passes rather than one long heavy one.

Mortise gauges

Mortise gauges traditionally come with the pins set at 6mm, which is too wide for smaller tenon work. Personally, I strip the gauge down and file the ends of the brass slider bars and shorten the stem until the pins come closer together. Be careful when removing the stock from any wooden gauge, as there should be a small metal or plastic washer protecting the stem from the

end of the threaded tightening thumb screw. Beware as this is very easily lost if the woodworker doesn't know it should be in there! But while these gauges will work well with the grain, they will tear the fibres if used across the grain, so for best results, a cutting gauge should be used. ➤

Right: Modifying a mortise gauge by filing the ends and shortening the stem





Cutting gauge with a point



A screw in the end of the stem makes for accurate repositioning

Cutting gauges

A cutting gauge has a knife-style cutter that severs the fibres and cuts a clean shoulder line, which is particularly useful when marking out dovetail shoulder lines. The quality of most cutters is very poor so I have taken to replacing cutters with either a good quality jigsaw blade or an old hacksaw

blade. These will hold a very good edge but need care when grinding and sharpening, as they are small. My personal preference is a fingernail shape rather than a point.

The blades in cutting gauges have one flat and one bevel side; the bevel side should always be set to be on the waste side of the line. Swapping these

blades around can be tricky as they are usually held in place with a brass wedge, which tends to fall out very easily during reassembly. My preferred method is a screw in the end of the stem, which makes accurate blade repositioning much quicker and also helps to lessen the risk of cutting your fingers while doing so.



A selection of different wheel gauges

Wheel gauges

Pin gauges can take a little time to master and newcomers to woodworking tend to prefer the newer style wheel marking gauges. These have the advantage that they don't tend to follow the grain and can also work across the grain as cutting gauges. The hardened steel wheel sits on the end of the stem, which means it can be set to the thickness of a piece of timber when the timber is laid flat on the workbench.

The better quality gauges also come with millimetre graduations along the stem, which means they can be set without the use of a rule. The disadvantage of this style is that, being circular, they can be difficult to use when marking out hinges or other occasions when you need to work up

to an exact finish point – the old style marking gauges are better for this type of work.

For those with larger hands, you may find some of these wheel gauges a little small to hold. The WoodRiver has a thicker stem and larger stock than some and doesn't roll off the bench as some designs do! The Veritas Dual Marking Gauge is a very well thought out tool. It can be used as a single marking gauge or a mortise gauge and has the advantage that the wheels have their bevelled faces opposing each other. This means that they can be set up so that the bevel is always on the waste side of the timber.

They also have a Veritas shaft clamp as an optional extra, which I would say is essential as it holds the dual bars in the correct position after setting prior



The WoodRiver gauge has a thicker stem and doesn't roll off the bench



Digital marking and mortise gauges are very easy to read

to moving the stock to the desired location. If this shaft clamp is not used, the bars move when you are setting it up, which can be very frustrating!

For those of you whose eyes aren't as good as they used to be, or who crave even more accuracy, iGaging have digital marking and mortise gauges that are very easy to read and are based on the wheel type of gauge. I am sure these types of gauges will become ever more popular as time goes by. ■

Coming next month in Woodworking CRAFTS

Traditional craftsmanship *reproduction of 19th century marquetry*

- Ben Law makes a traditional Swedish style of trough
- Turned insert hollow form
- What's your vice?
- Magic wallet
- DIY – skirting board joints
- Oak framed panel for stained glass
- Woodworking Geometry – bay window



PHOTOGRAPH BY AMBER BAILEY

ISSUE 6
ON SALE
1 OCT



PHOTOGRAPH BY LOUISE BIGGS



PHOTOGRAPH BY GMC/ANTHONY BAILEY

PLUS: Woodland ways, reader group product test, kit & tools and more

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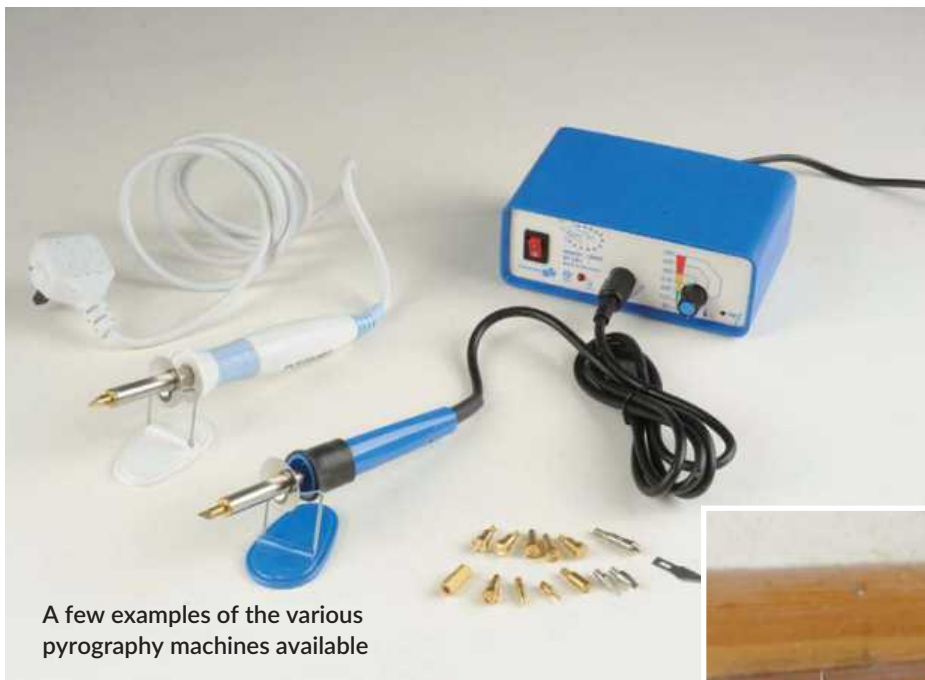
PYROGRAPHY for beginners

As we approach the season of autumn weather, it's time to try our hand at a bit of scorching in the workshop. **Amber Bailey** shows us how it's done

Pyrography or 'fire writing', as it is otherwise known, is the decorative art form of burning marks in a controlled application onto wood and other materials. Today it is mostly considered as a hobby and the equipment available is much more accurate and is controlled by electricity – i.e. with a pyrography machine. The technique's height of popularity was during the 19th century, when it became more commonly known as pokerwork. In one form or another, the notion of wood burning for decorative or instructive purposes can be linked back to the 17th century and far earlier. For these past craftsmen, fire was relied upon for scorching and etching, yet we now have a whole industry of laser cutting and scorching using vast machines and lasers for burning onto material.

Pyrography pens

Modern pyrography pens can be split into two categories: hot wire or solid tip. A hot wire pyrography pen can be argued as the best as it comes attached to a heat control so that you have total control over the output of the pen, ultimately making it feel much more natural to work with. The downside is the hefty price tag that comes with it. Spending upwards of £100 is a lot of money if you aren't sure whether pyrography is the craft for you. A solid tip pyrography pen is the perfect beginner's solution – at £20 it is a great piece of kit to try out before heavy investment. You may not be able to alter the heat output and you are working with solid tips, but that isn't an excuse for not producing great designs that can be applied to a variety of surfaces. ➤



A few examples of the various pyrography machines available

Setting up your pyrography pen

Pyrography pens come with a selection of different shaped metal nibs, each giving a different effect. When the pen is switched on, these will heat up very quickly and it is impractical to wait for the pen to cool down before changing the nib each time. The nibs simply screw into the top of the pen so using a pair of pliers instead of fingers will spare you blisters!

Each pyrography pen will come with a selection of nibs as well as further nibs being sold separately. These will all create very different effects and will feel different in movement. As you get to grips with the pen you begin to know which nib is suitable for creating particular aspects of a design. For a first time user, it is advisable to spend some time practising and 'doodling' to make sure you are comfortable with it.

It is important to prepare your material before beginning the pyrography. Make sure it feels as smooth as you intend the finished piece to feel, as any sanding at a later date will remove the scorching and with it all your hard work!

Updating your toolkit

At some point we have all fallen prey to having tools mysteriously disappear from workbenches, only to find them turn up in other people's tool boxes six months later. With the wonder of pyrography to personalise our tools we can finally, undeniably claim our tools back.

Keep your fingers away from heated metal. It will take several minutes before the nibs completely cool down, so don't instantly pick them up from the workbench!



Trying other materials

Although pyrography is conventionally used on wood, why not experiment with other materials for groundwork? Leather has historically been a favoured choice and I found that cork works extremely well.



A simple pattern scorched onto cork

Health & safety

The pyrography pen will get extremely hot so keep fingers away from the metal tips until it is unplugged and has cooled down. When not in use, keep the pyrography pen resting on a stand to avoid any fire hazards.

Should you burn yourself, immediately rinse the affected area under a cold tap for 10 minutes and seek further medical attention if this is necessary.



A sample board is great for trying out a variety of nibs and seeing the different effects that can be created

CREATING A PERSONALISED PLACEMAT

What you will need:

- An old placemat
- A sheet of veneer – I found yew (*Taxus baccata*) provides a nice range of colour
- Glue of personal choice
- Carbon paper
- A pyrography pen
- Watercolours
- Le Tonkinois varnish

Suppliers

For all materials and equipment, including a basic pyrography set, visit your local DIY store, www.hobbycraft.co.uk or www.axminster.co.uk

This is a simple but effective project to demonstrate your pyrography prowess and also makes a fantastic personalised gift to boot.

1 To create your design, choose a photograph that you feel comfortable drawing out. I have chosen my dog, Charlie.



2 Sketch out the subject matter and simplify or apply artistic licence where necessary to make the design more pyrography friendly. Using an old placemat, draw around the natural shape of the veneer and cut this out with a bandsaw. Smooth down all the edges with abrasive paper. Adhere the veneer to the placemat with your preferred glue and clamp up until dry. Placemats have to deal with a lot of heat and liquid so it might be worth using waterproof PVA glue. Alternatively, your groundwork could be made from solid wood rather than veneer. Once secure, smooth down with abrasive paper, going through the grades, coarse to fine.

3 You are then ready to transfer the design from paper onto the placemat using carbon paper.

4 Begin working your way around the design with the pyrography pen, changing nibs where necessary. I found it easiest to start with the main focal point and work my way out.



5 With the pyrography finished, you can then carefully highlight certain aspects of the design using watercolours and a natural fibre brush. Take care not to accidentally cover up any of the scorch marks you have taken the trouble to make. Finish the project off by sealing and waterproofing the placemat with Le Tonkinois varnish – traditionally used in boat building – or another suitable polish of your choice. Your design is then finished and ready to be admired. You could even frame your masterpiece if you so wish. ■

Amber Bailey

As a recent graduate of the BA (Hons)

Furniture:

Conservation,

Restoration &

Decorative Arts course at

Buckinghamshire New University,

Amber now works as a marquetarian

and restorer, specialising in veneered furniture.

Web: www.abmarquetry.com



READER GROUP TEST

Einhell cordless jigsaw and CMT jigsaw blades

Welcome to our Reader Group Test by members of our very own Woodworker's Institute Forum

The Einhell TE-JS 18 Li Jigsaw is part of Einhell's new Power X Change range of 18V Li-ion cordless tools. It brings together a whole range of tools for different purposes utilising standard batteries and chargers. The range is ever expanding but, for instance, currently there is an impact drill, impact screwdriver, reciprocating saw, multi-sander, angle grinder and a variety of garden tools all working with one hour or 30 minute fast charging, depending on the battery size.

DETAILS:

Price: £49.99 (inc VAT)

Contact: Einhell

Web: www.einhellpowerxchange.co.uk



PHOTOGRAPH COURTESY OF EINHELL

PHOTOGRAPH COURTESY OF TOMACO



Left: Matthew using the Einhell cordless jigsaw

We asked the testers a range of questions, some of which were graded, others needed more articulated answers rather than just scoring. We asked for their experience using the product and if they had any problems using them.

Einhell cordless jigsaw

Matthew Sulley: I had not used a machine with a splinter guard before and having now used the Einhell, I would not go back. With the guard installed the cut finish was fantastic! Normally, cutting ply results in numerous splinters and chips along the

length of the cut, irrespective of blade used, and present, to some degree, on all brands of machine. The splinter guard removed nearly all splintering and I was impressed by the quality of my workpiece afterwards. The sides of the cut were also smooth and splinter-free and I had confidence to use the tool on some precision cuts in thin oak (*Quercus robur*), knowing the quality of the cut would be high. I found all cuts to be 90° to the horizontal, which was very pleasing; no blade deflection.

James Bishop: I made some straight cuts with the whole of the soleplate on

the workpiece. The angle of cut was not consistent. This makes one wonder how it would get on with kitchen worktops. As a trial I crosscut a piece of 100 × 50mm pine (*Pinus spp.*). The cut had wandered off the right angle slightly within a cut of 75mm. The line guide gives a cut on the line rather than to one side. It needs dust extraction to clear the sawdust when following a line. I was unable to obtain a dead straight line with the parallel stop. Maybe more practice needed?

Walter Hall: The blade showed no tendency to wander and the adjustable



Detail of a cut using the splinter guard compared to a cut without the guard

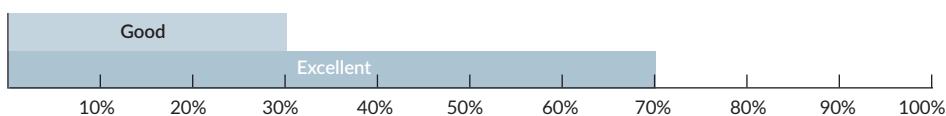


James Bishop using the Einhell jigsaw

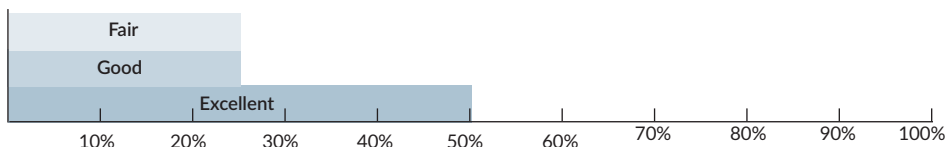
pendulum action made cutting a variety of materials trouble free. The LED lamp, clear chip guard and effective extraction facility made it easy to see and follow a curved line, while the – supplied – line guide and parallel stop facilitated straight cutting. I would recommend it for serious DIY or light trade. Looks and feels strong enough to cope with rough handling on site.

Richard Thornton: I used this jigsaw to cut 38mm worktop with a down cut blade and found it to be well within its capabilities, but it was necessary to take it steady, allowing the blade to cut. I then repeated this task with a standard clean-cut blade and found exactly the same result. Having checked the cost of this tool, I feel that it is very good value for money and while I do not think that it would stand up to the rigours of commercial use, it would be an asset to any domestic user.

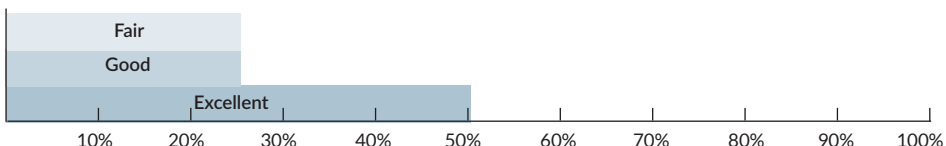
How would you rate the product performance?



How would you rate the product ease of use?



How would you rate the product overall?



Editor's comments

I had the chance to try out the Power X Change range back in the April issue of *Woodworking Plans and Projects* magazine. Einhell is definitely on to something with their range of 18V cordless tools at reasonable prices. They are bringing to the domestic consumer the interchangeability concept already exploited by the big trade brands. They are tough looking tools but not intended for heavy construction work. If you are on a budget, then this is a way into a system for a wide variety of tasks for both DIY and garden.



This jigsaw is capable of cutting a variety of materials, from softwood to hardwood

For our testers' comments on CMT jigsaw blades, please turn the page ➤

CMT jigsaw blades

Matthew Sulley: I tried the blades in different materials of varying thicknesses, ranging from 3mm ply to 10mm European oak and 30mm pine. The blades performed extremely well on all materials, cutting at a good rate of speed for the relevant timber, creating clean, accurate cuts each time and maintaining a solid 90° angle to the horizontal with minimal deflection on the thickest timber.

Breakout in ply was as to be expected with slight splintering on the upper face and the blade can jump about creating a less than perfect cut; however, by fitting a splinter guard and adjusting the pendulum action, this was totally eliminated to give a splinter-free accurate cut. The speed and ease of cutting oak was excellent with very little splintering and none with the installation of the splinter guard. .

Richard Thornton: The teeth appear to be very precisely ground, which results in a very fine finish. The recommendation is for use on 3-30mm material but I exceeded this by cutting some lengths of various 40mm thick wood. To prevent burning I used the first stage of pendulum action. Although destroying the fine finish on softwood, the results on hardwood were still quite good. I also tried fairly tight curves and found that I achieved good results down to 60mm radius. Within the recommended limits, all cuts experienced were good.

On difficult oak veneered 4mm plywood, using a fairly high speed and a slow feed, the breakout was almost

CMT jigsaw blades

CMT is a long established tooling brand so it seemed a good idea to team their fine wood cutting blades with the Einhell jigsaw. Tomaco have a wide range of CMT blade types, which you can buy online from their website.

DETAILS:

Price: Pack of five blades £5.32 (inc VAT)

Contact: Tomaco

Web: www.tomaco.co.uk



PHOTOGRAPH COURTESY OF TOMACO

non-existent – even when cutting across the grain of the veneer – and virtually as good as a down cutting blade.

Gary Fowler: The blades are well made, the packaging is good with plenty of information on the product. The blades cut well on all material tested, from 3mm even past 30mm thickness. Maximum thickness cut on test was 50mm. Breakout was minimal on a wide range of materials, including laminate flooring, plywood and various soft and hardwoods. I would have no problem recommending these blades.

Walter Hall: CMT products have a well deserved reputation for quality and these blades are no exception. They cut cleanly in hardwood, softwood, plywood and MDF. There was some breakout cross-cutting plywood but this is to be expected. Very little breakout when cross-cutting hard and softwoods and expected levels of breakout in plywood. Breakout reduced further with the Einhell splinter guard fitted to the saw.

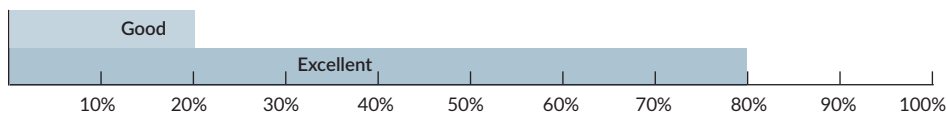
James Bishop: I tested these blades on 19mm pine, 19mm laminate, MDF and 50mm pine. I didn't encounter any problems on any of these test pieces, although I did experience a lot of breakout when cross-cutting pine, but no problems when ripping with the grain. Laminate suffered breakout but it was minimised by turning off the pendulum function of the jigsaw. It's the combination of blade and jigsaw that produces the results and I can see no reason why these blades would not perform well in any jigsaw. ■



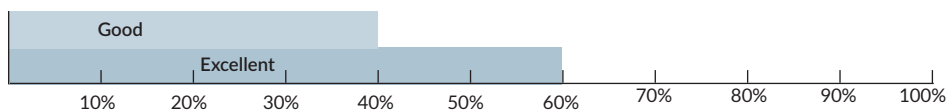
PHOTOGRAPH BY WALTER HALL

Walter Hall fitting the CMT blade to the jigsaw

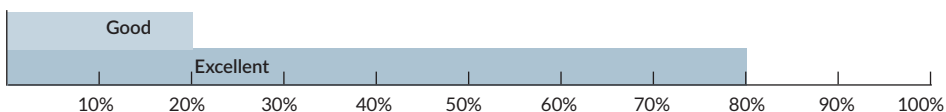
How would you rate the product performance?



How would you rate the product ease of use?



How would you rate the product overall?



Editor's comment

These blades, as our testers have noted, are very high quality and comparable to Bosch and Festool blades. It would have been good to have a variety pack to try as there are various types of blade in the CMT range. Nevertheless, they have performed well and come highly recommended to readers!



If you would like to be part of our panel of product testers, please go to our website – www.woodworkersinstitute.com – and **SIGN UP NOW!**

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Ask the Experts

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FINISHES FOR TURNED ITEMS

“I am new to turning and am having trouble working out what finish to put on my work. There is so much variety regarding finishes and very few sources of information as to what finish is good for what. I want to make things that will be used in the kitchen and elsewhere and often these will be used to store or come into contact with food.”

D Allan – by email

Mark replies:

Thank you for the question. You are right in saying that there is a bewildering amount of finishes available to us and it is certainly the case that many would not suit the projects and purpose you have in mind. Something I learned a long while ago, and many other turners talk about it too, is the three Fs. No, it is not a string of invective said when something goes wrong, but instead it is used to remind us of the three questions asked when we set about making something, namely, function, form and finish. The function of a piece will dictate the form used and also the finish selected. You mention items that will come into contact with food, so let's take a look at a bowl to house soup, breakfast cereals and suchlike. The bowl would need to be quite a deep shape to hold the soup without it spilling everywhere. This needs careful thought – typically close-grained hardwoods, such as beech (*Fagus sylvatica*), sycamore (*Acer pseudoplatanus*), maple (*Acer campestre*) and fruitwoods are used. Obviously there can't be any cracks or fissures for a soup bowl. So here is a prime example of the function dictating the form. The finish, the aspect you mention at the beginning, is, in this instance, going to have to be something that is safe to use when in contact with food and be reasonably stain resistant.



PHOTOGRAPH BY GMC/ANTHONY BAILEY

It is worth checking the oil out on sample boards before putting it on finished work. The colour will change and it also gives you a chance to look at the lustre



ANTHONY BAILEY
Editor, Woodworking
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MARK BAKER
Group Editor,
GMC woodworking
magazines



DEREK JONES
Editor, Furniture
& Cabinetmaking
Magazine



An oil finish can be applied with a cloth, paper towel or a brush

Best practice

I am going to recommend best practice in the case of finishes. Those that are labelled food-safe/suitable for use items intended to come into contact with food in Europe have undergone a certification process and on passing those tests can state safe for use on food and will have the relevant marking, typically a EN71 Food safe label. These are ones that I would recommend you looking at. This limits the range available to you, but if you are to sell items, then you need to use one that is compliant. I work on the principle that I want be totally confident that what I am using is suitable, so look for the products with the relevant labelling.

Food use

For food items, I must admit I mainly use an oil finish, but you can also consider varnish and polyurethane finishes, which are also food-safe. Oil finishes are probably the most commonly used finish for turners for items in contact with food. They are easy to use and can be bought in a variety of variants to suit different looks and work. They are, however, not as durable as the varnish options and require a recoat every so often. They are also not as resistant to beetroot

and balsamic vinegar stains/coloration. Having said that, they are easy to reapply if the item becomes a bit tired looking or scuffed. Hard-surface finishes such as varnishes are not so easy to repair.

The finishes I currently use the most are: Rustin's Danish oil and Chestnut Products' food-safe finish.

The Danish oil can be built up in layers to form a very durable surface. Chestnut Products' food-safe finish is a modified liquid paraffin oil, which leaves a matte silky finish on the work. Both are very nice finishes, but the Danish oil stands up to beetroot better than the food-safe finish.

It is worth mentioning that people do use 'edible and cooking oils' from supermarkets too. Sunflower oil, olive oil, nut oils and such like can be used. Be aware that some can go rancid after a while if used as a finish and nut oils may cause a problem for those with relevant allergies. If you sell or give away your work, then it is worth labelling it with a care plan of how to look after it and also what it is finished with. How to look after a wooden bowl for food-use is handy as you don't want one coming back ruined after being put in a dishwasher.

Just because they are labelled safe for use with food does not stop them being used on other work too. I also use both on other woodworking jobs. I hope this helps and please contact me if you have any other queries.

REPAIRING AN OLD TABLE TOP JOINT

“I've got an old dark oak drop-leaf table, where the boards have separated. Some of the glue blocks have broken cleanly off. I want to stabilise the top sections but I'm not sure it's a good idea to plane and butt joint the edges, the sections sit quite naturally but the top flexes a bit. I could put a board as a strap across underneath but that seems a bit basic and I would need to scrape the underneath surface enough to glue on to and the boards are slightly bowed anyway. Is there a better solution?”

Phil Harding – by email

Anthony replies:

Since the boards that make up the top are all slightly out of shape, that makes it harder to get good edge joints when they are all lying down on the underframe, as I'm sure you realise. The biscuit jointer is an excellent way to make discreet edge joints without planing edges or using glue, so the 'dry' biscuits still allow board movement and yet hold them together. Use plenty in line and low-tack masking tape and a soft grade pencil to mark the 'strike' positions, then carefully remove the masking tape once the slots have been cut. You can paint or dye the biscuits dark brown beforehand, so they aren't obvious.



The surface needs to be protected with low-tack masking tape



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Things to do in Autumn

Autumn is the awkward time of year. The weather can be remarkably kind, if dry, but often has chilly starts and ends to the days and low sunlight. This is your last chance to get important tasks done that will protect your property for the onslaught of winter. Rotted or bare exterior woodwork needs rapid attention. Once bad weather sets in, it'll be too damp to work on.

Outdoor furniture

Outdoor furniture needs to be put away or under dry cover so it won't degrade. It is a good time to coat a wood finish so it is in a good state when you drag it out next year in the late spring. This bench has been recoated in a Sadolin antique pine shade. Its finish will help it withstand the harshness of winter.



PHOTOGRAPHS BY GMC/ANTHONY BAILEY

Storing wood

If you have an open fire or woodburning stove hopefully now is the time to make sure your already stored firewood is in good condition and ready to use. It is also a good time to chop trees down once the leaves have fallen and the sap has stopped moving in the trunk. Walks in the countryside at this time often reveal some useful fallen branches for firewood, just make sure you aren't taking them illegally.



Overdue repairs

Look at the state of your property. This fanlight is overdue



for replacement due to rot, temporary repairs and broken glass. Another fault is the lack of a water seal along the top edge on the hinge line. Wood is the obvious option but in the long run, it may pay to replace with a custom made uPVC assembly complete with double-glazed, tempered, obscured glass.

ROUTER CUTTER

The Editor, as usual, gets in a bit of a spin when he's telling us all about routers – this time it's all to do with cutters, apparently...

Let's a look at a few of the basics when working with router cutters as there are things you will need to know. These working techniques can be applied to various cutter types. Once you have the basics, you can experiment with other routing operations.



The first point to note is that all currently produced router cutters should have a 'K' mark, which is actually an arrow and a bar. This indicates the amount of shank that should be fitted into the collet for safe operation. There are also small numbers and letters indicating brand, cutter diameter and type.



When you use a router, you should pull it towards you, not push away. The reason is that the cutter will naturally dig into the wood as you pull, especially when doing edge work. When pushed away, the router will tend to wander off course. Remember to push the fence into the side of the workpiece as you are pulling the router for the same reason.



Correct cutting direction

In this instance, I have used a roundover cutter with bearing guidance so it follows the shape, but the principle is exactly the same for straight cutters or any other type of cutter – there is no difference at all. It can cause some confusion, but the correct direction of cut is to move the router in the direction of cutter rotation. To understand this, look at the photograph and the arrows. On an external edge the router moves one way and on the internal edge, it is moving in exactly the opposite direction, but the same cut or 'attack' movement is taking place. If you accidentally move the router the wrong way, you will get a 'climb cut', where the router will skate along the edge most alarmingly and not under proper control. There are exceptions where climb cutting can be used but those are few and far between, so it is to be regarded as an unsafe practice to be avoided.

technique

PHOTOGRAPHS BY TERRY FORDHAM



For machining right along a workpiece you need to fix a small batten to the fence faces to extend the running surfaces. This prevents the router suddenly wriggling when you start or stop the cut, ruining the result. Double-sided carpet tape or small screws can be used to fix the batten in place.



There are many different kinds of cutter. Some have just one blade if they are a small diameter – L. There are many two-blade cutters, but not all have bottom cutting insert – M. The best sort have an insert; this allows plunge cutting, which most routers are intended to do.



So, you can't plunge with a straight cutter without a bottom cutting insert. If you do it is very slow and the hole gets burnt, so my advice is to avoid it completely and use only the correct type.

Workzone 1,250W router

Every now and then, Aldi feature bargain Workzone tools. I couldn't resist trying out this

£25 router because routers are never that cheap. I wanted to know if it was any good. In the main, the answer is yes. A bit of vibration is used, but quite well sorted as a tool. Beware of the tiny cutter – it was bowed and looked like it could snap. The factory fitted collet is 6mm continental size so I swapped immediately to the UK 6mm size – an 8mm one is also supplied. The guidebush is a massive 31mm diameter, but it is different to anything we have so I couldn't opt for a smaller size. However, with a 1,250W motor and variable speeds between 12,000-30,000rpm, it is still a bargain and will hopefully be back on the shelves before too long!



The rather throwaway item in your router set is the guidebush. In fact, it is one of the most useful things about a router. It gives maximum control of the machine. In the photo here it is being used to create a shallow housing slot. When you buy a router, make sure it will take different diameter guidebushes.



If you need to make slots for mortises as an example, you can do this without the bottom insert by using a technique called 'ramping'. This is where you plunge slowly as you make the slot, then work back in the other direction until you reach full cut depth.



Plunging to create a rebate can be very disappointing because of the tendency of making the wood 'breakout'.



The correct method is to set the cutter at full depth and work in from the side, as shown by the step cut done here. The fence is moved out a bit at a time and relocked so the cut width increases until you reach the desired rebate size. ■

Small space woodworking



PHOTOGRAPHS BY GMC/ANTHONY BAILEY

TOWEL RAIL & toilet roll holder

The Editor found himself in a bit of a tight corner when we asked him to come up with a compact project. Now he's on a bit of roll with this one, so we won't have to hang him out to dry

Here are two ways of tackling the same job: one is a toilet roll holder with bevelled edges that needs some care to do well and a towel rail, which is simpler to make and put together. You can use either design depending on whether you want a bit of a challenge or not. The towel rail can be any length you like depending on the wall space you have available.

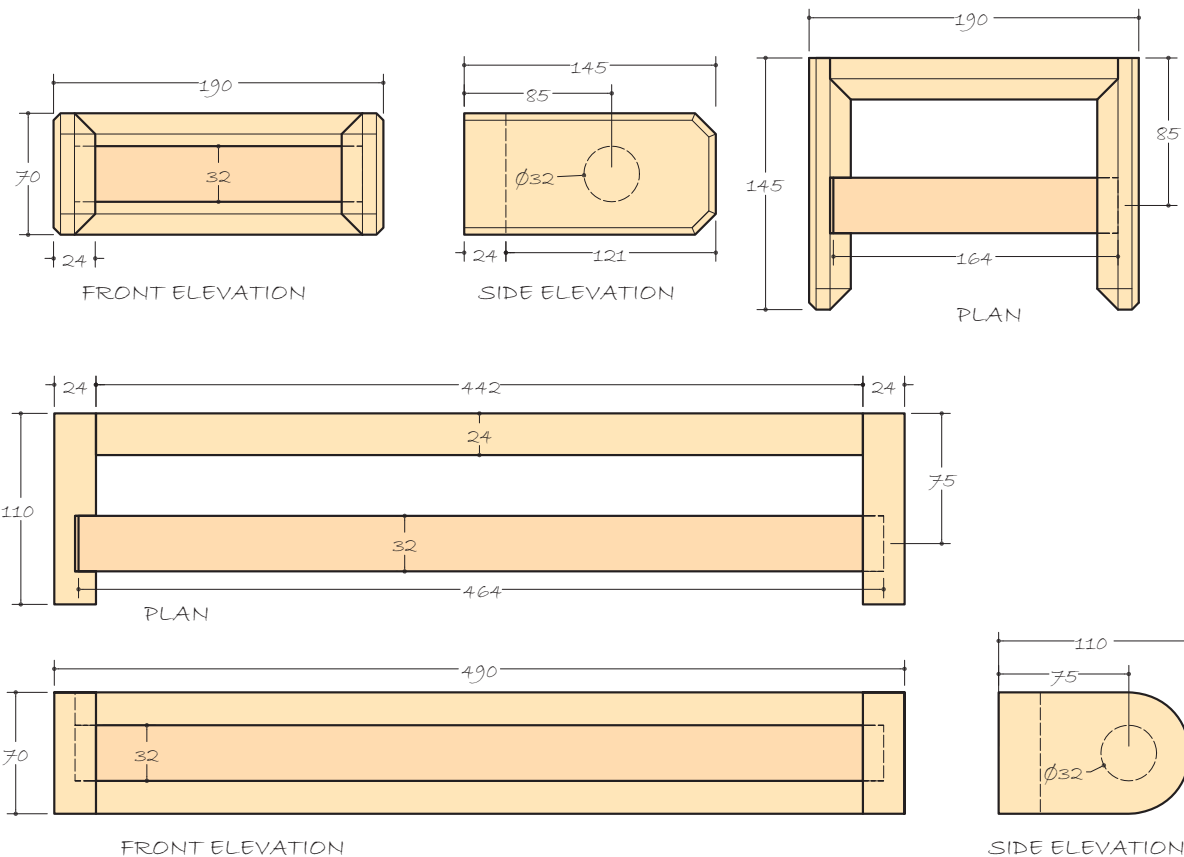
1 I've been using the Gothic style workstation from issue 2 to make

this project. It works perfectly well but being tall, it needs to be fixed to a wall so it can't move. If that isn't possible, you can do what I did and cut and tap a couple of wedges into place, which will press it back against the wall.

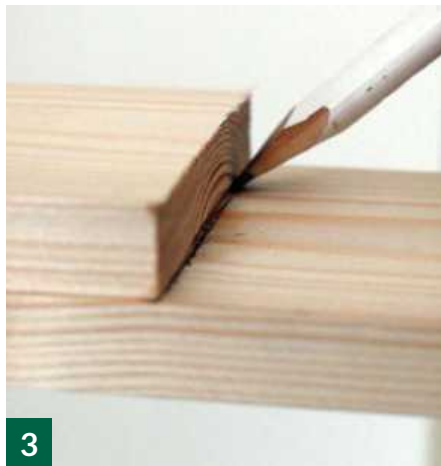
Toilet roll holder

2 To cut the components for the toilet roll holder, simply clamp the prepared softwood strips to the work surface. Each component is half the final thickness as you need to drill holes and a cut-out for the dowel.





3 To cut matching components I usually mark one onto the other before using a square to draw the line properly. A handsaw, however, creates a ragged edge so turn the top component upside down for a more accurate drawn line.



3

4 Although I actually used a spade bit, as can be seen here on the right, the more expensive sawtooth Forstner bit cuts a neater hole and it doesn't have a long point.



4

5 The next step is to use your fingers to guide and draw a pencil line along both faces so you can plane a bevel at 45°.



5

6 My No.4 smoothing plane was the right size for this job. The first few passes take very little off but as the bevel widens, proper shavings develop.



6

7 For the toilet roll holder, a cutout is needed at one end so the roll can be lifted out and changed. Note the large bevel detail, which is present on both long edges. ➤

8 Now the front piece can be covered in a line of glue ready to attach to the plain back section. A waterproof PVA or aliphatic resin glue is advisable to use here.

9 Next, put the glued up components in the vice and leave to dry with a small clamp holding the overhanging end tightly. Note this assembly is for both ends and will be cut in two.

10 Before cutting the assembly into two components, the outer ends need to be bevelled just like the long edges, except this time the plane needs to angle upwards so the blade cuts 'with' the grain, not against it.

11 Here are both ends cut to length. Now the back section, which is plain and consists of two thicknesses, needs to be cut to fit them.

12 At each end just one thickness of material, i.e. a single strip, needs to be marked and the bevel positions of end pieces as well. The bevel cuts can then be carefully sawn.

13 The next step is to cut out the bulk using a coping saw carefully following the marked line. This avoids having to correct it too much afterwards.

14 Use a fine rasp to flatten the cut line and level neatly for a good joint fit. You can also rasp the bevels to help achieve the correct fit.

15 Once the joint is clamped you know it will fit well – no nails or screws are necessary as the bevelled joint gives plenty of gluing faces.

16 Prior to this, give the outer edges a light bevelling using



a block plane. All that is left to do now is to glue, assemble and clamp everything up before painting.

17 In order to get the lift out dowel to fit easily, you need to bevel the ends of it so it will still be long enough but not loose.

Towel rail

18 For a simpler treatment, drill the holes as before and glue both pieces together before trimming and shaping.

19 The outer ends will be curved here so use an aerosol lid to draw the shape. The end pieces won't need to project very far as it will only hold a towel.

20 First, use the coping saw to cut the basic curve shape close to the marked line, then use the rasp to smooth the curves.

21 A piece of medium abrasive stuck to a board with spray mount adhesive is an excellent way to sand your work and will allow you to achieve to a flat, smooth finish.

22 Because some stress will get applied when pulling towels on and off the rail, use slim nails to fix the ends after gluing for extra security.

23 Both fitments need a base paint coat and a final topcoat. I used a soft pastel blue and then put a thin coat of white satin coat over the top, wgive it a slightly streaky glaze effect.

24 Once this is done, your toilet roll holder and matching towel rail are now ready to use and should look something like this. ■



16



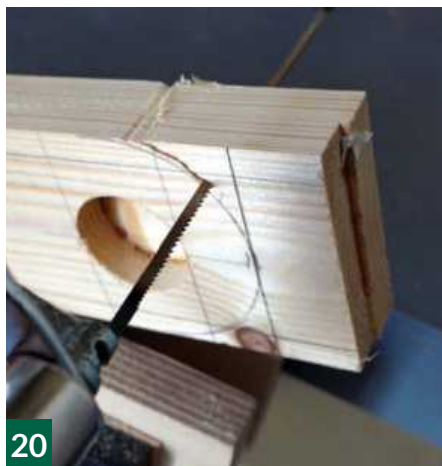
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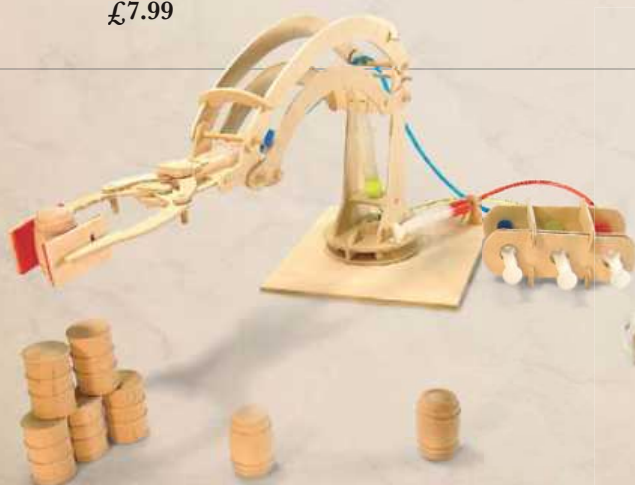


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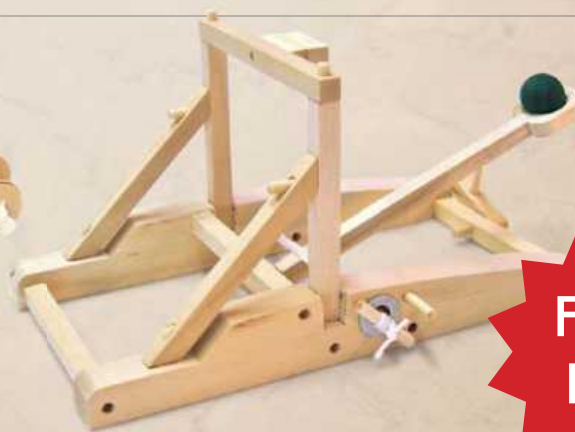
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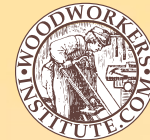
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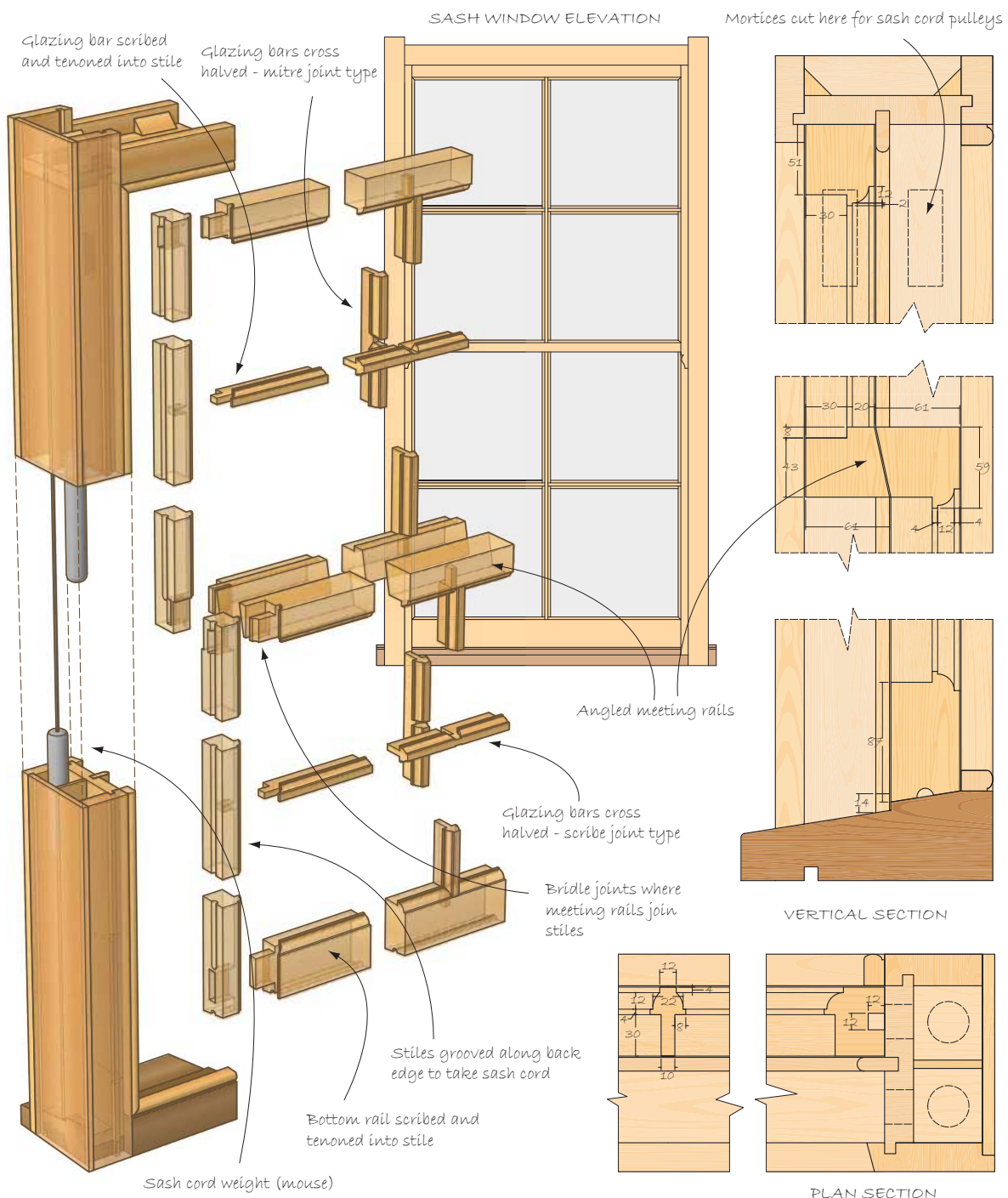
WOODWORKING GEOMETRY

Carrying on from the last issue, we focus on the sliding window itself, or 'sash' as it is otherwise known

In the last issue we showed you the principle features of the frame of a sliding box sash window, typical of Georgian and Victorian houses throughout the country. This time we are focusing on the sliding window itself, or 'sash', which is the glazed and openable part of the construction. There are a wide variety of joints used in these sashes, some of which are shown. Traditionally many of the joints include a 'scribed' section, where the shoulders of the rails or glazing bars are cut out to mirror the moulding or profile of the frame. Other noteworthy joints are the two types of halving joints on the glazing bars where they cross:

one scribed and the other with a mitred profile.

In the elevation you can see a decorative addition at the bottom of the stiles of the upper sash and this is known as the horn. Continuing the stile in this way allows a stronger joint on the top sash, where the angled meeting rails are formed. This angle helps to weather and draught proof the join between the upper and lower sashes. Stopped grooves are also shown on the sides of the stiles of both sashes and the ends of the sash cords are fixed with carpet tacks into these grooves so that the sashes slide easily in the frame. ■





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